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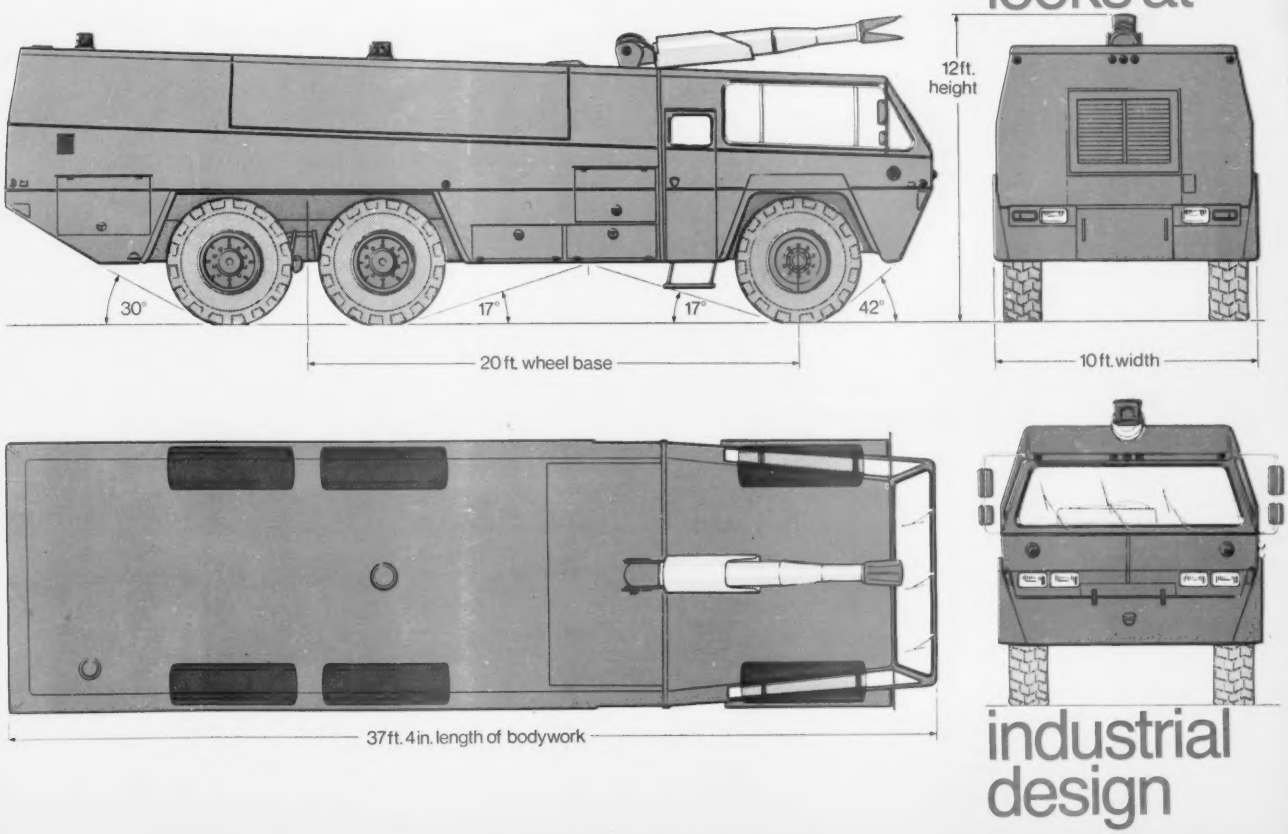

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9 March 1979

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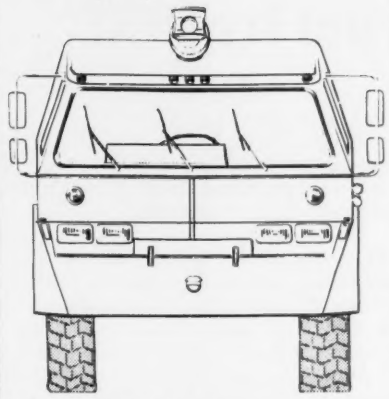

What should British industry be doing to improve product design? See *Strategy News* (centre pages).

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OVERSEAS

Trade with China: $14 billion target by 1985

Substantial orders from China for British industry, which will help create or maintain jobs, will be placed in the months and years ahead, Eric Varley, Secretary of State for Industry, said in Peking on Sunday.

Mr Varley was speaking after the signature of an economic co-operation agreement between the People's Republic of China and the UK. The agreement provides a target of $14 billion for trade and other economic activity between Britain and China between now and 1985. This is $4 billion more than the figure announced after the first round of discussions on the trade agreement in London last November during the visit of Vice Premier Wang Zhen.

The secretary of state also announced a $5 billion credit guarantee arrangement backed by the government for the import of capital goods from Britain.

The economic co-operation agreement was signed at the end of a week-long visit to the People's Republic of China by Mr Varley, who was accompanied by 10 leading industrialists and by a senior trade unionist. During his stay in Peking Mr Varley had meetings with Hua Guofeng, the Premier, as well as Vice-Premiers Li Xiannian and Wang Zhen (Mr Varley's host for the visit), and the Minister for Foreign Trade, Li Qiang.

After the signing ceremony the secretary of state said that both governments felt that the target was ambitious but realistic. Both sides hoped that it would in fact be exceeded between now and 1985. This would require a major effort but it was possible.

During his stay in Peking Mr Varley had 10 meetings with individual departmental ministers, as well as meetings with the State Planning Commission and the Bank of China. The industrialists had many additional meetings with ministries and corporations particularly relevant to their interests.

The discussions in Peking were wide ranging. Industrial sectors figuring prominently in the talks included coal and minerals, vehicles and components, food and drink products, light engineering, aerospace, shipbuilding, power generation, machine tools, construction equipment, and steel and chemical plant.

At his meetings Mr Varley identified individual projects under discussion on which British side was particularly looking for progress, and emphasised the need for early progress if the projects were to play a full part in China's industrial modernisation. In several areas substantial progress was made during the secretary of state's talks and those conducted by the businessmen. This should be reflected in specific contracts in the months ahead. Moreover, negotiations were set in train in a number of new areas.

For their part many senior Chinese ministers stressed the valuable work which technical missions from the UK had done on many projects, and emphasised the favourable impression formed of British industry during Chinese missions' visits to the UK.

Mr Varley visiting new container terminal at Shanghai.

While in Peking Mr Varley said that he was confident that British components would do well in China, so long as they were competitive in price, delivery and quality.

In many areas the experience and expertise Britain has to offer appears to accord closely with China's needs. The country is determined to proceed with its policy of modernisation and to make itself internationally competitive in trade. But China's aims can be achieved only if it expands its power generation capabilities, increases its coal production, speeds up the exploitation of its massive mineral resources, improves communications, and promotes the development of exporting industries.

Britain's expertise is relevant to all of these areas. British power plant manufacturers have had detailed discussions on China's power station needs, and specific proposals will be put to Peking soon. A team comprising mining technologists, mining equipment manufacturers, marketing experts and bankers will shortly go to Peking to discuss how China can best sell its coal abroad. Following the discussions by a British team in Peking in January on ways in which Britain can assist in the expoitation of China's immense non-ferrous resources – tin, tungston, copper etc – companies are now working hard preparing specific proposals. And there is no question about Britain's ability to help the development of China's exporting capability throughout the world.

British interests should also do well in other areas discussed during Mr Varley's visit. Talks are to continue on the Airbus and the BAe 146 projects. China displayed an interest in both developments during last week's talks and they are to be followed up. Separate to this, a high-level team may visit the UK later this year to discuss railway modernisation projects.

If China does purchase the BAe 146 – or indeed many other products which are being discussed with the People's Republic – it is likely to be on the basis of part manufacture of these or related products in China. In their discussions with Mr Varley, China's leaders indicated some concern at the foreign exchange implications of the likely scale of the modernisation programme, and their preference for arrangements that would lessen the impact of industrial modernisation on its exchange position.

The secretary of state pointed out that Britain was particularly well placed to help – beyond the important credit arrangement which he announced during this visit. First, the exploitation of China's mineral resources, with the involvement of British companies.

should provide very substantial sums of foreign exchange during the 1980s. Secondly, the UK's experience as a trading nation could be put to use in specific areas, such as coal. Thirdly, British companies were very willing to consider part manufacture within China. Several of the industrialists accompanying Mr Varley put forward proposals along these lines for discussion with the Chinese government.

During his visit Mr Varley saw many aspects of China's industry. In Datong he spent several hours underground at a colliery and saw British mining equipment working proficiently. In Peking he visited the Shoudu steel works. Here the British Steel Corporation and Davy International hope to obtain a contract for the modernisation of the works. At Shanghai Mr Varley visited both a car and truck factory and a new container terminal (where British cranes were at work).

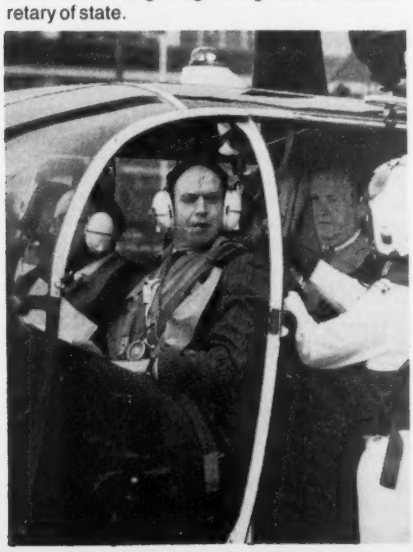
Visits to Singapore and Hong Kong

Before his talks in Peking, Mr Varley visited Singapore and Hong Kong. In Singapore the secretary of state discussed with the Finance Minister, Hon Sui Sen, and the Minister for National Development, Teh Cheang Wan, the scope for economic co-operation between the EEC and the Association of South East Asian Nations countries.

During a three-day visit to Hong Kong, Mr Varley had several discussions with leading industrialists, and toured Hong Kong and the New Territories by helicopter with the governor, Sir Murray MacLehose. In addition he saw the progress being made on Hong Kong's mass transit system (which will be largely equipped by British companies) and visited the China Light and Power/Exxon power station at Tsing Yi which incorporates British power plants. Both developments represent sectors where British industry has recently won further substantial orders in Hong Kong.

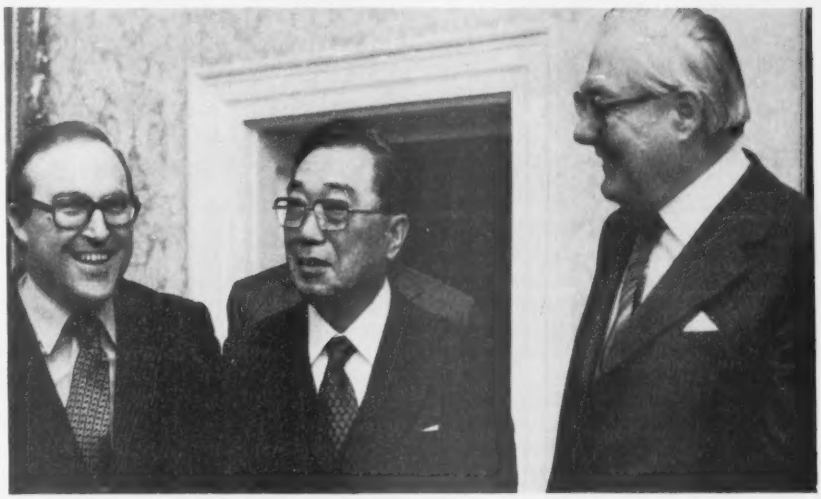
On leaving Hong Kong, Mr Varley said that he was 'in no doubt that British companies should do more to take advantage of the opportunities here, especially as Hong Kong can be an important shop window for those hoping to sell to the People's Republic of China'.

Preparing for helicopter trip over Hong Kong and New Territories. Sir Murray MacLehose, Governor of Hong Kong, sitting behind the secretary of state.



Signing of the economic co-operation agreement: Mr Varley and Li Qiang, Minister of Foreign Trade.

Japanese mission places £54m orders



Japanese mission leader Mr T. Matsuo (centre) with Prime Minister James Callaghan and trade secretary John Smith.

Orders for British goods worth £54 million have been placed by the largest Japanese buying mission to visit the UK.

This figure was described by mission leader Mr T. Matsuo to Prime Minister James Callaghan at a meeting on Tuesday as 'just a beginning'. Later Mr Matsuo explained that by continuing to exploit more opportunities this amount could be multiplied many times.

John Smith, Secretary of State for Trade, said that the government was very encouraged by this initial amount. It was more than he had thought and represented some 10 per cent of the 1978 UK exports to Japan. He welcomed the mission that was led by 'a good friend of this country' because it showed that both sides were approaching the balance of payments problem in a positive way.

The mission of 107 members was divided into four groups (*Trade and Industry*, 9 February, page 274), and the goods purchased ranged from textiles, through consumer goods to machinery and cars (see box).

The mission considered that concluding these deals and expanding the Japanese import of British goods on a long-term basis would contribute to the improvement in the current Anglo-Japanese trade imbalance and that to achieve this objective members felt it essential to develop new products and new distribution channels through mutual co-operation.

One of the mission groups was concerned with investment in the UK. After visiting

What they bought

☐ Textile goods worth over £4.25 million and agreement is expected on products worth a further £6 million in the next six months. Major products bought include men's fabrics and men's and ladies' clothing. Potential for ladies' fabrics and ready-to-wear and medium-quality goods.

☐ Major consumer products included whisky, confectionery, procelain and ceramics, kitchenware and furniture; valued at £36 million over the next six months. The mission group indicated a potential for reproduction furniture, pictures and room accessories.

☐ General and agricultural machinery worth £8 million. Included is the import in the current year of 1000 Rover 3500s – the first time these cars have been imported into Japan.

seven Japanese companies already operating in the UK, the group concluded that the UK was one of the most suitable candidates for investment by Japanese companies interested in the EEC market and wanting to establish production bases in Europe.

The group was impressed with the infrastructure and system of dealing with inward investment. They also found that industrial relations in the UK were more favourable than it was generally thought in Japan.

During their 10-day visit, mission members travelled to 24 cities and saw the products – at specially arranged sample shows – of over 400 companies and made well over 3000 individual contacts.

Third world market should be realised – Hart

Almost 3000 million potential consumers of industrial goods live in third world countries, overseas development minister Judith Hart told the Institute of Credit Management annual conference on Tuesday. Yet barriers to development existed which prevented this market being realised.

One of these was that official transfers of resources – aid – was not enough, on a global scale, to promote development rapidly enough to assist in the solution of the world crisis; and not enough to increase demand sufficiently to reinvigorate the economies of industrialised countries like Britain.

At the same time, Mrs Hart said, there was unused liquidity around, and private banks could play an important role in the essential process of recycling surpluses.

One possibility was co-financing in joint ventures with the World Bank and the regional development banks. Another was commercial lending in participation in development projects with states in the third world at rates of interest which gave priority of recognition to longer-term objectives rather than short-term profit.

What was essential, the minister said, was that the increase in liquidity should become a source of funding for productive investment and employment creation both at home and in the third world.

HOME

Uganda Airlines Stansted flights

The necessary permissions for the carriage of goods on flights by Uganda Airlines from the UK to Uganda will no longer be granted, the Department of Trade announced on Monday (5 March).

Uganda Airlines operated about 90 flights from Stansted Airport to Uganda in 1978 and 12 in the first two months of 1979 and as these are non-scheduled flights they require permission from the Department of Trade in each case, in accordance with article 77 of the Air Navigation Order, 1976.

The flights have carried a wide variety of goods including industrial and construction equipment, spare parts, medical and educational supplies, consumer durables and Luxury goods such as alcoholic beverages.

Talks to start on tachograph timetable

Consultations to fix a timetable for the introduction of tachographs in the UK will begin shortly, transport secretary William Rodgers said on Monday.

In a written parliamentary answer Mr Rodgers said the government had reluctantly concluded that it had to accept the European Court of Justice's decision on 7 February that the UK was in breach of its obligations under the treaty of Rome over implementing tachograph regulation 1463/70. This requires the use of tachographs in most goods vehicles over 3.5 tonnes gross weight, and in buses and coaches not on regular services. It had been accepted by the UK on accession to the community, Mr Rodgers said, and there has been no subsequent attempt to renegotiate it. However, although in 1977 parliament approved regulations enabling the tachograph to be used on a voluntary basis, the government had not previously believed it necessary to make its use compulsory.

Consultations would take place with the employers' organisations and the trade unions on an appropriate timetable to achieve full implementation of the regulation, Mr Rodgers said. He would also be consulting the commission, which he was obliged to do under the terms of the regulation.

Controls proposed on road transport of dangerous substances

A comprehensive framework of controls over the conveyance of all dangerous substances by road is proposed by the Health and Safety Commission in a consultative document published on Tuesday. The 'Proposals for Dangerous Substances (Conveyance by Road) Regulations' (HMSO, £2.00) are intended to be comprehensive in that they would cover all hazardous substances (except for explosives and radioactive substances) when transported by road, including those carried for private or leisure purposes, not only while actually on the public road but at all times from loading to unloading.

Proposals are set out for 'exemption limits' which would grant automatic exemption from these regulations according to the nature of the material carried, the total quantity carried in the vehicle, and the size of unit in which it is packed. The intention is to ensure the application of the regulations only to those areas where uncontrolled activities may present a hazard.

One of the most important aspects of the proposed new regulations, says the consultative document, is the provision of information to those who have to deal with these substances. This covers not only the provision of information by the consignor to the operator of the vehicle concerned, but also the provision of information to those, such as the emergency services, who have to deal with an accident.

The draft proposals incorporate and extend the new road tanker labelling regulations which come into force on 28 March. Under the 'Hazardous Substances (Labelling of Road Tankers) Regulations 1978' (SI no. 1708, 1978, HMSO, 70p), road tankers carrying single or multi-loads of any of about 400 dangerous chemicals (including hazardous wastes) must display special hazard warning panels.

The new proposals adopt similar requirements for the identification and classification of dangerous substances by widening the use of the now familiar orange, black and white hazard panels to other types of vehicles, such as those carrying either large tank containers or packaged goods. This extension would provide the emergency services with vital information in the event of an accident to these other vehicles.

Comments

Comments on the consultative document, to be received not later than 29 June, should be sent to Mr A. J. Gates, HSD-A3, Health and Safety Executive, 25 Chapel Street, London NW1 5DT.

Start of technical counselling in the north

Counselling on the technical aspects of manufacturing was made available to small firms in the north of England from Monday. Half the consultancy charge, up to a maximum payment of £500 in any one year, will be paid by the Department of Industry.

To provide the new service, an extra counsellor, with specific experience and knowledge of technical matters, will join the small firms counselling service based in Newcastle upon Tyne, Middlesbrough and Cockermouth and which covers the five northern counties. Two of the existing counsellors will also help with the new scheme.

Existing service

The existing counselling service will continue with its 12 counsellors – all of them business people with a wide range of experience and expertise which can be called upon to help develop the full potential of small businesses. Under the counselling scheme the first session is free, the second costs £5 and the third and subsequent sessions £15 a day up to a yearly maximum of 10 days. Technical counselling will offer the same benefits, and, in addition, the new scheme provides payments towards consultancy costs.

Home news

Roy Hattersley accepts BOC offer to hold prices

Charges for non-contract sales of compressed permanent gases and dissolved acetylene in cylinders are to be held by BOC Ltd until 5 October. Roy Hattersley, Secretary of State for Prices and Consumer Protection, accepted an undertaking to this effect from BOC following a report by the Price Commission on its investigation into price increases proposed by the company.

On 6 October 1978 BOC notified price increases amounting, on a weighted average, to 9.8 per cent for compressed permanent gases in cylinders, and to 9.7 per cent for dissolved acetylene in cylinders. These proposed price increases were investigated by the Price Commission and frozen during the investigation. The Price Commission report, published on 1 March, recommended that the increases should be wholly restricted for 12 months from 6 October 1978. The undertaking from BOC reflects these recommendations in full. It has already come into effect, and will remain in force until 5 October unless the secretary of state agrees meantime to its revision in the light of new circumstances.

The commission believes, according to its report, that there is sufficient scope for the company to improve efficiency to enable it not only to recover increased costs but also to meet its target rate of return on capital and achieve an adequate profit.

Cost minimisation, says the report, was the most significant issue to have emerged in the investigation, and therefore the cumulative effect of the problems revealed had been given considerable weight in determining the commission's recommendations.

The commission believed that there was a need for an urgent programme of cost reductions in many areas of the company's business, and while the investigation was still in progress it heard that the company was starting on a reorganisation scheme.

Management and staff costs

The report says that the cost of management – partly because of the recruitment of graduates and technicians – had become too high relative to levels of output; it notes that this was perhaps because of BOC's dedication to growth. The company's regional line-based organisation with functional advice from headquarters had tended to create conflicting aims between the centre and the operating units. The commission considered that production and distribution of both bulk and cylinder gases should be organised on a national basis with central control and accountability.

The company had now started replacing its present functional organisation by one based on business groups with clearly defined responsibilities and closely related accountabilities.

Between September 1976 and September 1978 staff increased by more than 10 per cent, but there was not a corresponding growth in business. The company agreed there were important economies to be made in unit staff costs.

Productivity

The investigation looked at the substantial productivity payments made as part of BOC's 1977 pay settlement. It found they did not result in any increase in productivity. Production for the nine months from January to September 1978 – after the 1977 strike and pay settlement – did not reach the level of the previous year.

The commission says it has seen no evidence that the productivity agreements were constructed to lead to gains in efficiency at unchanged levels of production. The cost in 1978-79 of the productivity payments deriving from the pay settlements of 1977 and 1978 would be almost as much as the additional revenue which would arise from the proposed price increases under investigation. This could be justified only if output per man was increased to compensate.

Security

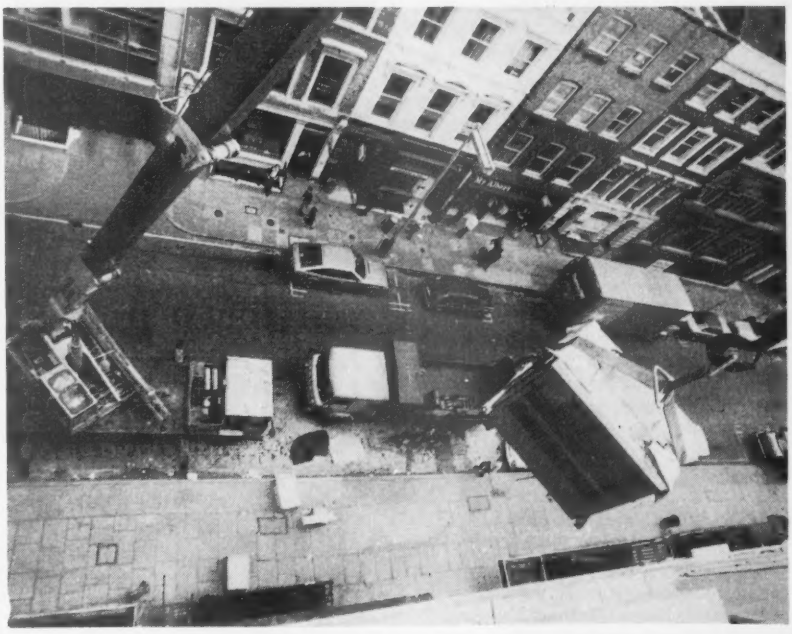
Although BOC spent more than £1 million a year on its security force and considerable management effort was directed to reducing illicit losses, more than 30 000 cylinders were missing each year. And very large volumes of gas were distributed in cylinders to an illicit market for which no revenue was received, the report states. Cylinder losses currently represented about £1.7 million annually and the illicit gas trade a further loss of £1.5 to 2 million a year.

The annual cost of these losses was broadly equal to the estimated additional revenue that would have been achieved from the proposed

Minimum lending rate

Minimum lending rate was reduced by the Bank of England from 14 per cent to 13 per cent on 1 March. From the time the rate was raised from 12½ per cent to 14 per cent on 8 February, short-term market rates of interest fell by about 1 per cent.

Big lift in Hatton Garden



Because of an exceptionally narrow staircase, it was necessary to close London's Hatton Garden on a Saturday morning to enable 6100 ADX equipment ordered by the telegraphic information services firm Lydia Star to be hoisted to the top floor. Hardware for ITT Business Systems' automatic message-switching system is assembled at the company's Enfield factory for customers in the UK and Germany.

price increases. The commission says that management, labour and customers would need to co-operate closely, and tighter controls would have to be instituted, if the losses were to be materially reduced.

Cost control
About 10 years ago BOC adopted a decentralised control of its gases business, for which it decided unit cost information was unsuitable. Because of this, the commission says that it was unable to agree with BOC a basis for determining the amount of cost absorption achieved by the company in the operation of its cylinder business but believed it was not very significant.

Pricing
A random sample by the Price Commission of customers' views of BOC's prices, contract terms and general operations confirmed a picture of limited competition. The commission considered there should be greater openness about costs and prices and greater flexibility in contract terms.

The commission was concerned that the use of general indices in escalation clauses in BOC contracts might over a period of time result in increases in prices materially out of line with actual cost increases.

The commission welcomed the company's development of the three-element pricing system for cylinder gas supplies to present the customer with a more accurate reflection of the costs associated with different levels of service and patterns of ordering. The three elements of the system catered for volume-related costs in the gas price, transaction-related costs in the fixed charge, and cylinder-related costs in the rental charge. The commission was concerned that the three parts of the tariff were not closely related to specific identifiable elements of costs. As a result some customers might order over frequently and so add to BOC's costs.

A second area of concern was that the gradation in the gas charge appeared to penalise small users to a greater extent than could be justified by underlying cost differentials.

Delivery charges
BOC served the whole of the UK, and the report notes that it took pride in the quality of its delivery service, even to the extent of satisfying short notice orders, which might result from poor planning by customers. This did, however, create delivery problems and might strain facilities on occasions. It was the commission's view that the extra costs generated should be charged to the customers who caused the problem. The company planned to review its delivery resources for the gases division as a whole and the commission agreed that BOC could usefully re-examine its distribution network on a national basis.

Competition
BOC held about three-quarters of the UK market for atmospheric gases (the only significant competitor was Air Products Ltd, on whom the commission published a report in December). It had about 80 per cent of the cylinder gases business, and over 90 per cent of UK sales of acetylene.

Prospects for new entrants to the industry were not promising. The cylinder business was relatively capital intensive. BOC's stock of 1.6 million industrial gas cylinders had a replacement cost of about £80 million. The investment required to establish a delivery system was also substantial and could be justified only if the volume of business was adequate. In addition, there had been little or no growth in the market for cylinder gases in recent years. There was little prospect therefore of any increase in competition.

Profitability
The report acknowledges that without the proposed price increases and any other changes, the company's return on capital on its cylinder business was likely to reduce to about 5½ per cent in 1978-79, against a target 10 per cent on a current cost accounting basis. However the cylinder business was about a third of the total business of the gases division and a smaller proportion of BOC's total activity.

It was the commission's view that by achieving a higher return on sales to some larger customers and necessary improvements both in controls and staff and labour efficiency, the target return would be attained and even exceeded. The cylinder business would then not only generate an operating cash flow surplus but also make a substantial cash contribution to the central funds of the group.

Recommendations
The price freeze recommended by the commission would operate for 12 months from the date – 6 October 1978 – on which the company notified intended increases.

The gases division of BOC had wanted to raise cylinder gas charges for non-contracted customers only – for dissolved acetylene in cylinders by a weighted average of 9.7 per cent, and for compressed permanent gases in cylinders by an average of 9.8 per cent. Both increases also covered increases in cylinder rental and fixed charges for all customers.

It was the commission's view that these increases should not be allowed and further that charges for these products should not be increased for a total of at least 12 months.

If however serious progress was made at an early stage in the programme to improve efficiency on which the company had now embarked and BOC subsequently asked the Secretary of State for Prices and Consumer Protection for a price increase during a period of restriction, the commission says it would, if consulted, advise the minister to exercise his discretion in the company's favour.

The Price Commission report, 'BOC Limited – compressed permanent gases and dissolved acetylene sold in cylinders, cylinder rentals and fixed charges' is available from HMSO, price £1.

Beer and water: interim price increases

The Price Commission is allowing Bass Ltd and Whitbread and Co to make interim price increases while investigations into the two companies continue (see *Trade and Industry*, 23 February, page 356). In both cases an increase of 3.25 per cent on sales in managed houses only, limited in the case of the companies' own draught beers to 1p per pint, has been agreed.

The increases take account of the awards granted by the wages councils. The granting of these increases does not mean that the commission has taken a view about the full notifications submitted by the companies. At this stage of the investigations, the commission says that it is not able to assess the overall position of the companies but the requests for further interim increases are being kept under review.

Interim increases are also being allowed by the commission for charges by the Welsh Water Authority while higher charges proposed by the authority are being investigated.

On unmeasured water – supplied mainly to the domestic user – an increase equivalent to an average of 12.8 per cent has been allowed; average increase allowed on sewerage and environmental service charges is 12.5 per cent. For the domestic consumer the interim increases mean that the average increase in the total bill will be 12.67 per cent instead of the proposed 14.9 per cent. The restricted increases in charges represent in total a 10.02 per cent increase in the authority's revenue, compared with the 13.9 per cent sought.

No decision has yet been made on any interim increase in measured water supply charges. The investigation is due to be completed by 23 May.

Merck's proposed acquisition of Alginate referred to MMC

Secretary of State for Prices and Consumer Protection Roy Hattersley has referred the proposed acquisition by Merck and Co Inc of Alginate Industries Ltd to the Monopolies and Mergers Commission for investigation and report under the provisions of the Fair Trading Act 1973. The commission has been asked to make its report within five months.

The decision to make a reference to the commission does not prejudge the question whether or not the merger would be against the public interest; it is for the commission to report on this after investigation.

More time to examine metal doors and windows

More time has been given to the Price Commission for the completion of its examination into the manufacture and distribution of metal doors and windows and the installation of such items in existing properties. Particulars of the variation, which was made on 26 February, are as follows:

Whereas on 5 September 1978 the Secretary of State for Prices and Consumer Protection, pursuant to section 10(1) of the Price Commission Act 1977, gave a direction to the Price Commission requiring them to examine and, before 1 March 1979, to make a report to him on certain questions relating to the manufacture and distribution of garage doors made of metal, metal-framed doors and windows whether supplied pre-glazed or not, metal frames in which such metal-framed doors and windows may be mounted, and the installation of such items in existing domestic properties:

Now the Secretary of State, pursuant to section 10(3) of that Act and after consulting the Price Commission and the Director General of Fair Trading, hereby varies the said direction so as to require the Price Commission to make the said report before 13 March 1979 instead of before 1 March 1979.

Master plan to combat oil pollution

Recommendations for improved arrangements to combat pollution at sea have been accepted by the government. Announcing this in parliament, trade secretary John Smith, said the recommendations and proposals – contained in four reports – would nearly double expenditure on anti-pollution (see *Trade and Industry*, 2 March). The government would also press strongly for an increase in compensation for oil pollution damage.

The four reports are published by the Department of Trade in two volumes: 'Liability and compensation for marine oil pollution damage' and 'Improved arrangements to combat pollution at sea'. They are available free of charge from the Marine Library, Sunley House, 90 High Holborn, London WC1V 6LP.

At the beginning of April 1978, following the *Amoco Cadiz* disaster, the Prime Minister asked the departments concerned to review with the greatest thoroughness all the contingency plans for dealing with a major oil spillage. The main review was completed on 2 August 1978 when reports by a steering group under the chairmanship of Sir Leo Pliatzky, Permanent Secretary at the Department of Trade, and by a working group were published under the title 'Accidents at sea causing oil pollution: review of contingency measures'. On the same date the then Secretary of State for Trade announced the the government had accepted the recommendation which included:

- ☐ Setting up a new unit in the Department of Trade with responsibilities for planning contingency arrangements and taking charge of operations to deal with pollution at sea
- ☐ Working out proposals for an increase in the existing capability for dealing with pollution at sea
- ☐ Establishing how best to improve communications and take full advantage of the support facilities provided at the joint service maritime headquarters
- ☐ Reviewing salvage arrangements, including the resources available
- ☐ Reviewing liability and compensation provisions
- ☐ A review, led by the Department of the Environment, of beach-cleaning arrangements.

The new marine pollution control unit is now being established as part of marine division at the Department of Trade, with Rear Admiral Michael Stacey as its director.

The review of beach-cleaning arrangements led by the Department of the Environment is due to be considered by a working party which includes representatives of other government departments and local authority associations.

Torrey Canyon sparked off one of the first major oil pollution battles.

Summary of the reports

Command, control and communications

This report calls attention to organisational improvements and to improved alerting procedures in the vital early stages of an incident. It recommends that, while arrangements need to be flexible, there should normally be at least a command centre near the operation itself, an information centre in London, and arrangements for close liaison between the Department of Trade and the other departments and agencies involved including the MOD maritime headquarters and local authorities.

Communications improvements are detailed: in some cases they have already been implemented. They include additional vhf equipment at coastguard centres to permit communication with aircraft, portable vhf sets for spraying vessels, improved telephone and telex links between headquarters departments and between headquarters and coastguard centres, facsimile equipment for the transmission of charts and layout diagrams of tankers and additional cross-channel telephone and telegraph circuits.

A joint press office team drawn from several departments is proposed, together with better facilities for the news media. A wide variety of problems are raised which may be caused by chemical and gas carriers and the report points to the need for adequately-trained teams for dealing with these and oil-pollution emergencies.

Resources and R&D

The report provides for a considerable enhancement of the present dispersant spraying capability, for the use of new techniques and for a considerably increased R&D effort.

The report proposes an increase of 40 sets of spraying gear which, apart from Ministry of Defence resources of some 40 vessels, would permit an increase over the country as a whole from about 90 to about 125 tugs and other vessels available for anti-pollution operations. Additional stocks of dispersant, the provision of a further 20 transfer pumps and minor items including alterations to tugs' pipework to allow them to carry dispersant in their tanks are also proposed. The provision of vessels on permanent standby for anti-pollution duties which would be unused for most of the time, is not judged cost effective.

Financial provision should be made, the report says, for acquiring six sets of the new oil recovery system being developed by the Warren Spring Laboratory known as Springsweep and for a retainer on a large aircraft equipped for aerial dispersant spraying. Additional and speeded-up R&D is recommended.

The report proposes that the maintenance of equipment should be contracted out: this task has imposed an increasing burden on staff whose qualifications are unnecessarily high for it.

Salvage

The availability of commercial tugs, salvage vessels and lightening tankers is reviewed. The report takes the view that there appears to be no case for government involvement in the provision of such vessels apart from those required by the Ministry of Defence for its own purposes. It recommends that the position should be studied further in depth and kept under review.

The group which produced the report included representatives of government, salvage-insurance and oil-industry interests. It recommends that the government should purchase and hold available two caches of specialised equipment for use in offloading a vessel of its cargoes and bunkers and, where necessary, inerting cargo tank spaces. The Ministry of Defence has agreed to store, test, maintain and exercise the equipment at Pembroke Dock and Rosyth and operate it when required, on repayment. The recent *Christos Bitas* incident in which special pumps had to be flown in from Holland and Norway demonstrated the value of having such equipment readily available.

The report also recommends the up-dating and circulation of a directory of salvage resources and equipment, further work on identification of ports and places of refuge and the readier availability of stability data. While the powers of intervention in salvage for anti-pollution purposes are regarded as generally adequate, the report considers that current work on revising tanker salvage contractual agreements to take into account the pollution risk should be completed as soon as possible.

Cost

The capital costs of these proposals in 1979-80 are some £1½ million with recurrent costs of about £½ million, apart from additional staff which may be needed by the new marine pollution control unit: this is being financed by a re-ordering of priorities within the Department of Trade's overall expenditure.

Allowing for the new unit and for the enhanced R&D effort, the recurrent cost of the government's anti-pollution effort would be nearly doubled.

The developments outlined in these three reports, if accomplished, would represent a considerable improvement in preparedness to deal with pollution emergencies, without the great expense of maintaining dedicated vessels which would rarely be used. The new organisational arrangements will need to be co-ordinated closely with those being considered by the Department of the Environment's working party on beach-cleaning arrangements.

The supervision and exercising of the new developments proposed and the review of their adequacy will be among the priority tasks of the new marine pollution control unit.

Liability and compensation

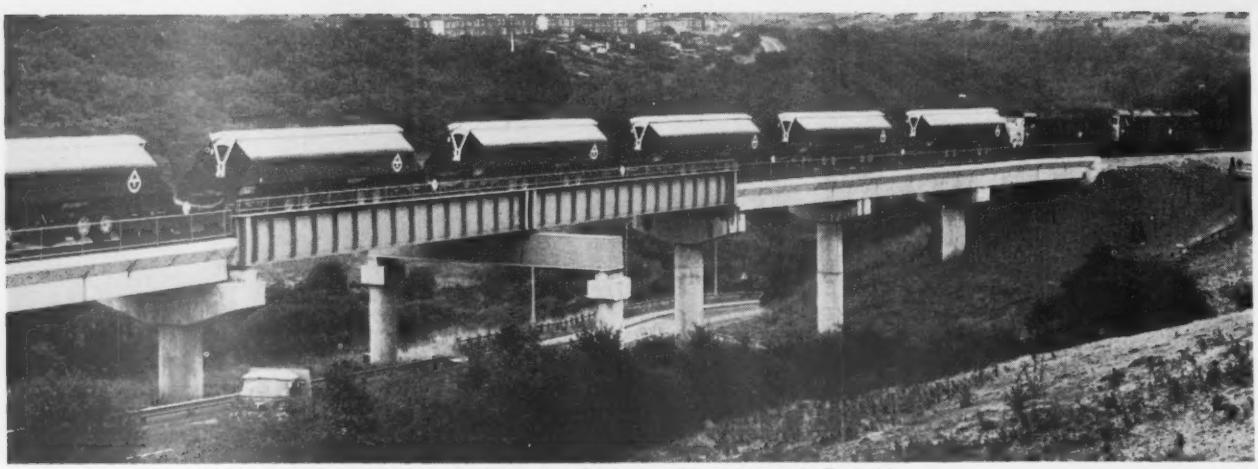
The report on liability and compensation for marine oil pollution damage was prepared by an interdepartmental group which consulted with a number of local authorities and other interested organisations.

Between the setting-up of the group and its first meeting, Imco, the United Nations' specialised agency dealing with maritime affairs, announced that the newly established international compensation fund for oil pollution damage would provide greatly improved compensation for pollution incidents after 13 February 1979.

The report details the group's considerations of a number of points including the adequacy of the present arrangements; the types of oil covered by these arrangements and their geographical coverage; pollution from oil spills of unknown origin; the limits of liability and constraints on claims; and what procedural improvements were possible in the settlement of claims.

The group agreed on seven recommendations for action:

- ☐ The possibility of international action to extend the existing liability conventions to non-persistent oils should be explored within the Imco legal committee
- ☐ The UK should promote in Imco an extension of the liability provisions of existing international agreements to cover the bunkers of oil tankers not actually carrying oil in bulk as cargo
- ☐ In considering the possible extension of UK territorial sea limits to 12 miles, the government should recognise the benefit that would result for fishing interests in respect of some claims for oil pollution damage
- ☐ Priority should be given to working out the cost of pollution damage resulting from oil spills of unknown origin, so that the government can then consider what further action might be appropriate
- ☐ The UK should strongly press for an immediate increase of the present compensation ceiling of £19½ million under the international compensation fund for oil pollution damage
- ☐ The UK should support a longer term review of the resulting compensation ceiling
- ☐ The need for speedy settlement of claims should be recognised by all concerned, and strongly emphasised in meetings of the international fund.



Custom-built wagons for Cleveland Potash Ltd are hauled by two BR locomotives en route to Teesside.

Roll your own

British Rail is encouraging industry to use its own wagons on the country's rail system. Already 30 per cent of rail freight is carried in privately owned wagons, and BR is looking for a 'significant increase', according to chairman Sir Peter Parker.

Major traffics are bulk materials ranging from petroleum products, chemicals, cement and minerals to foods and even completed cars and vans.

Speaking at the opening of an exhibition of privately owned freight wagons at Olympia last week, Sir Peter declared that rail transit 'is unrivalled in the bulk-load sector', where 95 per cent of traffic runs directly from siding to siding. BR may adopt a policy of charging by weight rather than type of load, he said, thus further encouraging the use of modern large-capacity wagons.

Sir Peter refuted criticism of delays to rail freight during the recent bad weather, saying that it was unreasonable to expect BR to be able to cope with sudden huge increases in freight traffic simply because motorways were blocked.

The Private Wagon Federation, whose members build or lease vehicles for industrial customers, is working with BR to increase productivity further by cutting turnaround times and running trains at higher speeds.

In spite of unexpected losses of traffic due to the recession in iron and steel, preliminary figures show that BR's freight operation may break even for the first time in 1978, Sir Peter said. The number of applications for assistance under section 8 of the Transport Act, which provides for funding rolling stock as well as infrastructure, is increasing. Over 60 grants have now been made.

Merger proposals cleared

Roy Hattersley, Secretary of State for Prices and Consumer Protection, has decided on the information at present before him not to refer the following mergers to the Monopolies and Mergers Commission under the provisions of the Fair Trading Act 1973:

GeI International Ltd/The Moss Engineering Group Ltd.

Wallace Brothers Trading and Industrial Ltd/OSE Holdings (UK) Ltd.

New SWP reports

Latest reports from the Industrial Strategy sector working parties for the National Economic Development Council are:

Electronic computers: 'Progress report 1979' and 'Manpower sub-committee – second interim report'.

Domestic electrical appliances: 'Progress report 1979'.

Fluid power: 'Progress report 1979'.

They are all available free from Nedo Books, 1 Steel House, 11 Tothill Street, London SW1.

Big drop in higher tar cigarette brands expected

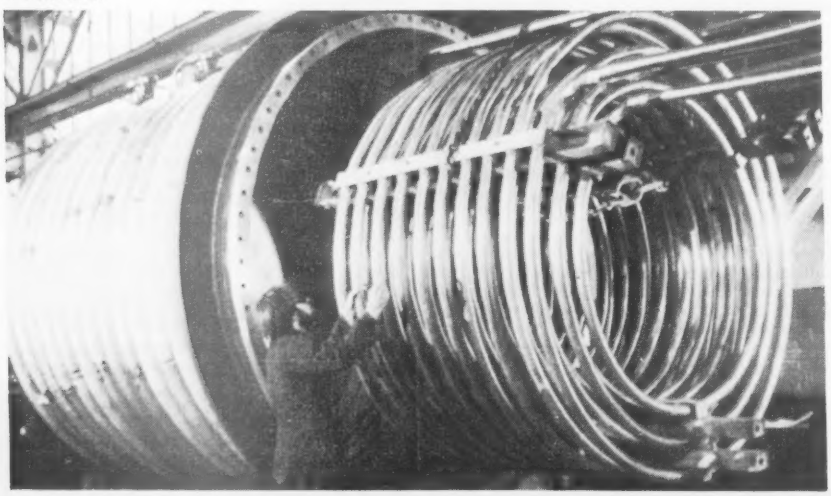
The government's latest tar and nicotine tables show 33 cigarette brands with tar yields of 20 mgs and over, out of a total of 127 brands.

Results are based on sampling carried out before the introduction of a supplementary tax on higher tar cigarettes (20 mgs and over) on 4 September 1978. Most of the 33 brands have now undergone changes to reduce their tar yield.

The new tables, which go to doctors, dentists, opticians, pharmacists, health centres, clinics and local offices of the department, warn of the serious risk to health from cigarette smoking and urge smokers to give up the habit. Failing that, smokers are advised to buy a lower tar brand and to smoke fewer cigarettes. A poster has been prepared for display by tobacconists.

High precision engineering in Sheffield

High precision engineering – limpet coil jacketted vessels pictured during construction at Titanium Fabricators Ltd of Sheffield. This process plant equipment, produced in anti-corrosive metals, has been specially made for installation at the ICI complex at Grangemouth in Scotland.



'T & I' index inquiries

Readers wanting to know when articles and items of information were published in *Trade and Industry* should consult the published indexes which are issued free to subscribers. For material published in recent months, inquiries of this kind can be made to the Department of Industry Library's indexing section, tel. 01-215 5842 or 01-215 5879.

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Official appointments

English Tourist Board. Secretary of State for Trade John Smith has appointed Michael Montague as chairman of the English Tourist Board to succeed Sir Mark Henig, who died recently after a short illness. The appointment, for three years from 1 March, is on a part-time basis.

British Airways Board. Mr Smith has appointed Jeffrey Sterling to the board of British Airways. The appointment is part-time and will be for three years from 19 February.

Transport Users' Consultative Committee for Wales. Roy Hattersley, Secretary of State for Prices and Consumer Protection, has appointed Mr E. R. Jones as chairman of the Transport Users' Consultative Committee for Wales from 1 March until 28 February 1982.

Mr Hattersley has also appointed Mr J. P. P. Smith, Mr A. E. Witherspoon and Mr M. J. Whitson as members of the Transport Users' Consultative Committee for the south east until 31 July 1981.

Gas Consumers' Council. Roy Hattersley, Secretary of State for Prices and Consumer Protection, has appointed Councillor Mrs E. M. Heath as a member of the North Thames Gas Consumers' Council until 30 April 1981. Mr Hattersley has also appointed Mrs M. Edelman as a member of the North Thames Gas Consumers' Council until 30 April 1981, and Mrs M. Stevenson has been appointed as a member of the Scottish Gas Consumers' Council until 31 May 1981.

Design Council. Eric Varley, Secretary of State for Industry, has appointed new members Mr R. J. Maskrey, managing director, Maskreys, Mr M. J. Kimberley, managing director Lotus Cars, Mr G. N. Bowman-Shaw, chairman, Lancer Boss, Mr G. Downie, general manager, Radstock Reproductions, and Mr G. Eastwood, general secretary, Association of Patternmakers and Allied Craftsmen, to the Design Council.

Britons took 4m more holidays last year

British people took 48 million holidays of four nights or more away from home last year – just over 4 million more than in 1977, reports the British Tourist Authority. These figures are revealed by the BTA's British national travel survey for 1978.

The survey shows that Britons took 39 million holidays in Britain in 1978, compared with 36 million in 1977. In 1978 they took 9 million holidays abroad (including Northern Ireland and the Irish Republic), compared with just under 8 million in the previous year.

Expenditure on all holidays taken by British people in 1978 rose to £3,560 million. This represented an increase of 22 per cent over the previous year. Expenditure on holidays abroad increased by 37 per cent to £1,860 million. For the first time it exceeded expenditure on holidays taken in Britain, which amounted to £1,700 million.

Gas energy advice centre

The first British gas energy advice centre – in Birmingham shopping centre – has been opened. Advice on saving all forms of energy will be available to consumers – householders as well as industrial and commercial organisations.

DoI advance factories

Openshaw
The English Industrial Estates Corporation is to build an advance factory of 900 m² for the Department of Industry at Cornwall Street, Openshaw, Manchester. Work has started and the premises should be ready for occupation in August. Inquiries on purchase or lease: Mr C. Giles, Department of Industry, North West Region, Sunley Building, Piccadilly Plaza, Manchester M1 4BA, tel. 061-236 2171.

Huyton
Work has started on converting two factories into seven smaller units of 680 m² each for the Department of Industry at Wilson Road, Huyton in the Merseyside special development area. The premises should be ready for occupation in January or February 1980. Inquiries on purchase or lease: Mr C. Giles, Department of Industry, North West Region, Sunley Building, Piccadilly Plaza, Manchester M1 4BA, tel. 061-236 2171.

St Helens
Work has started on two advance factories of 1350 m² for the Department of Industry at Sherdley Road, St Helens, in the Merseyside special development area. The premises should be ready for occupation in October. Inquiries regarding purchase or lease: Mr C. Giles, Department of Industry, North West Region, Sunley Building, Piccadilly Plaza, Manchester M1 4BA, tel: 061-236 2171.

Sunderland
The English Industrial Estates Corporation is building three advance factories at 600m² each for the Department of Industry at Leechmere industrial estate, Sunderland. The terrace unit type factories are divisible into four individual units of 150m² each and the premises should be ready for occupation in October. Inquiries regarding purchase or lease: Regional Director, Department of Industry, Northern Region, Stanegate House, Groat Market, Newcastle upon Tyne, NE1 1YN, tel: 0632 24722.

Chairmen – past and present

Sir Frederick Wood (right) took over the chairmanship of the National Research Development Corporation from Lord Schon on 1 March. Sir Frederick has been a member of the corporation since 1973. During Lord Schon's chairmanship, the corporation prospered to the point where it is now able to finance from its own resources a substantial programme of investment in the development and exploitation of inventions (see page 483).

Government sales

22 March 1979 – Miscellaneous

Location:
Golden Lion Hotel, King Street, Stirling

Auctioneers:
Dixon and Wallace (Dept L), Bank Buildings, Graham Square, Glasgow G31 1AW (041-554 2447)

Stores lying in Scotland including footwear, greatcoats, jerseys, blankets and other clothing; furniture, mattresses, kitchen and householdware; MT spares; vehicles; plant and machinery including cranes, forklift trucks; ferrous and non-ferrous scrap metal; and many other miscellaneous items.

28 and 29 March 1979 – Miscellaneous

Location:
Post House Hotel, Herbert Walker Avenue, Southampton

Auctioneers:
Austin and Wyatt (Dept L), 79 High Street, Fareham, Hants (0329 234211)

Stores in southern England including clothing and textiles, furniture, electric motors and spares, kitchenware, power and hand tools, paint, scrap metal, tyres, Bristol Gardner buses, fork lift trucks, vehicles and other items.

Catalogues, which give details of the lots, conditions of sale, viewing times etc, are available from the auctioneers from two weeks before and up to the day of the sale, price 40p, postage 15p.

Investing in Britain

Our review this week of investment in the UK by British and overseas firms includes a report of the first phase of a £280 million investment programme by Land-Rover. Projects in Scotland and Wales are among other reports.

Land-Rover V8 – first return on £30 million investment

Production of the new Land-Rover V8 will earn Land-Rover Ltd the first return on its £30 million, first phase investment to expand four-wheel-drive production facilities.

The first phase, part of an overall £280 million to be spent by 1982, has lifted output of Land-Rovers by approximately 10 per cent to 1500 weekly and all the extra 150 vehicles per week will be powered by the V8 engine. In addition, Range Rover production will be increased in the phase one expansion by 50 per cent, from 300 to 450 weekly.

When the phase one programme is complete in the spring, the £250 million second phase will begin which will nearly double existing production capacity by 1982. Land-Rover Ltd states that it has 15 per cent of the world's four-wheel-drive market and the expansion will help the company strengthen its position and meet increasing competition.

At the heart of the expansion has been the provision of a completely new £6 million V8 engine assembly track at Acocks Green Plant, Birmingham, with a capacity for nearly 2000 units a week.

Also, a new gearbox assembly track has been installed at the Tyseley number two plant in Birmingham, where output has been increased to meet the demand for extra Range Rovers and where the gearbox is fitted to the Land-Rover V8.

Axle assembly for Land-Rover, originally carried out at Perry Barr plant in Birmingham, has been transferred together with some employees to new facilities at North Works, Solihull.

A new assembly track for Land-Rovers is currently being installed in North Works, Solihull and, when commissioned in the spring, it will considerably ease some congestion experienced on existing build lines.

Spencer Gears expands at Leicester

Spencer Gears Ltd, a subsidiary of Spencer Gears (Holdings) Ltd, has accepted an offer from the Department of Industry for an interest relief grant of up to £315,000 under the Industry Act 1972.

A new 1800 m² factory on land adjacent to the existing works in Sulgrave Road, Leicester, is to be constructed and part of the existing factory will be rebuilt and enlarged to provide an additional 1300 m². Work will start shortly, and the new factory should be ready by the end of this year. The entire development costs are estimated at over £2 million, and the main purposes of the project will be to develop and manufacture complete power transmission units and a range of speed-reducer gears, and to expand the company's facilities for batch production of gears and transmission units.

When completed, this will be one of the most modern specialised gear-cutting factories in the UK.

Metal detector firm thriving at Inverness

Savo Electronics Ltd of Longman industrial estate, Inverness, is to have a 1700 m² factory extension built this year by the Highlands and Islands Development Board.

Savo began production in 1976 in a 600 m² factory in Inverness owned by the Highlands and Islands Development Board (HIDB). This followed a request from White's Electronics Inc of Oregon to probe the market potential of Europe for metal detectors and find a suitable location for their production.

Since then the company's labour force has grown from three to 46, and with the factory extension to be completed this summer Savo expects to be employing 150 people in two years' time and have a turnover of £3 million.

'The growth of the company has exceeded all our expectations, says founder Alfred S. Olsen, from Oregon. 'We have virtually taken over production of White's complete range of detectors from the American factories and are exporting to every European country and to Australia and New Zealand. There is no sign of slackening in demand, for market research has shown that, unlike skateboards, treasure hunting is here to stay.'

Saunders Valve starts eight-year programme

Saunders Valve Co of Cwmbran, south Wales, launched an eight-year investment programme costing £5 million this year. The company is a three times winner of the Queen's award to industry for export achievement, and sales to overseas customers consistently account for the bulk of the company's production.

The company produces a weir type diaphragm valve, invented by P. K. Saunders in South Africa in 1929. The invention eliminated the problem of external leakage and was widely adopted in the Rand gold mines. The Saunders Valve Co was established in Wolverhampton in 1936 but in 1939 a new purpose-built factory was opened at Cwmbran. The factory has been expanded and re-equipped almost continuously since then.

In 1971, the company became a member of

the Gallaher Group and since then Gallaher has been acquired by American interests. Although it is now US-owned, Saunders remains an autonomous enterprise with a subsidiary of its own, Saunders Valve Inc, in the USA. There are 1500 employees at Cwmbran, and with a foundry at Newport and another factory at Hereford, the total workforce numbers well over 2000. Turnover has risen from £11 million in 1971 to £37 million this year.

WDA backs two research companies

More than £600,000 is to be invested by the Welsh Development Agency (WDA) in two north Wales research companies.

The first, Palmer Research Laboratories of Mostyn, Clwyd, is working on a new drug to fight leukaemia and a £254,000 investment is to be made in the company by the WDA to help it to expand its pilot-plant facilities.

Up to £350,000 in equity funds and loan finance is also to be provided by the agency in an investment in Robertson Research Engineering Services of Deganwy, Gwynedd. A new company, Robertson, is to make geological instrumentation to search for and extract natural resources all over the world.

Current cost accounting:

Price indices for overseas countries

In 1977 the Central Statistical Office and the Inflation Accounting Steering Group jointly commissioned a study of the availability of price indices for current cost accounting in fourteen countries. The results of this study are available in a booklet, 'Current Cost Accounting: Guide to price indices for Overseas Countries', obtainable from Her Majesty's Stationery Office.

The booklet contains descriptions of the most appropriate indices, together with comments on their usefulness, for current cost accounting. In addition the booklet gives details of overseas price indices available in UN and OECD publications.

Price £1.60 (£1.72 by post). ISBN 0 11 630163 5

News for inclusion in 'Investing in Britain' should be addressed to: The Editor (Investing in Britain), Trade and Industry, Eighth Floor, 1 Victoria Street, London SW1H 0ET.
Advertisers who wish to be associated with the feature should contact Terry Day on 01-242 9478 (or, in the north, Alan Loftus on 061-766 2191).

New publications

Moving goods: the role of documentary credits

In a new and comprehensive guide the International Chamber of Commerce has tackled the important role of documentary credit in international trade. 'In simple terms', it says, 'documentary credit is a conditional bank undertaking of payment . . . an arrangement by banks for settling international commercial transactions'. And using a basic text with many clear charts and illustrations, prepared by a team of acknowledged world experts led by chairman of the ICC Banking Commission Bernard S. Wheble, it sets out to expand this definition. The guide is based on a draft by Andre Boudinot of the Credit Lyonnais, Paris, aided by comments from banks and banking associations in a number of countries.

Presented in concise and attractive form, the guide indicates the type of problem that can be solved by use of a credit, and outlines all the stages involved, from both the buyers' and the sellers' points of view. A checklist of key processes is provided and readers are made aware of ICC's own uniform customs and practice in this field, which are reproduced in full at the back.

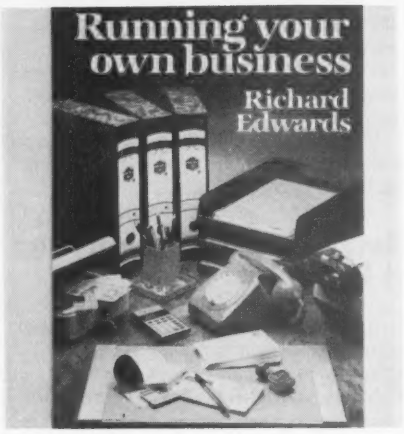
As a basic and authoritative guide to a subject which is 'an essential part of international trade involving thousands of transactions and billions of dollars every day in every part of the world', this book should meet a considerable need from those relatively new to the field – particularly since the 'Uniform customs and practice for documentary credits' have been in use for many years with little or no explanatory literature. If the guide is to be regularly updated to reflect changes in customs and practice, it should become a standard text for all those in banking, manufacturing and trading who are concerned with movement of goods around the world.

Guide to documentary credit operations. ICC publication no. 305. British National Committee of the International Chamber of Commerce, 6–14 Dean Farrar Street, London SW1H 0DT. 1978. 50 pages; paperback £3.00. (£2.40 to members) (ISBN 92 842 1003 8).

The dream of going it alone

Independence from other people's actions and a chance to prove yourself are good motives for running your own business, according to Richard Edwards in his newly published book on the subject. Testing out abilities to the full, carrying responsibility for all one's decisions, working out one's own ideas, are all, in his view, among the main attractions for those deciding to go it alone. And the purpose of the book is, as he put it, to help those who want to 'realise the dream of becoming self-employed'.

Taking a simplified personal approach, Mr



Edwards reminds the reader of the problems and complications that could arise. Among the topics involved are how to get started; how to form a limited company; financial matters; and marketing and advertising.

Some readers may find the approach too elementary. But for those without the necessary background or experience in basic business procedure, it should prove a useful introduction. The appended list of books and addresses for further information would perhaps have been of more value had they been more clearly presented.

Running your own business, by Richard Edwards. Oyez Publishing/Ward Lock, 1979. 95 pages; hardback £2.95. (ISBN 0 7063 5518 0); paperback £1.95. (ISBN 0 7063 569 7).

. . . and the problems of being your own boss

Setting up a business is a complicated affair which can be fraught with difficulties for the unwary or the ill-informed. In a recently published and useful little reference book these problems and possible hazards (as varied as over-borrowing, isolation and illness) are identified and avoiding action is prescribed.

All other aspects of establishing and building up a business, including management, finance, staff and customers, are also covered, step by step. There are references to relevant legislation and government publications, and the author concludes with a helpfully annotated list of useful addresses.

This is the second edition of the book and all the information in it has been substantially up-dated since publication of the first edition in 1972 and sections on growth areas – employment legislation and pensions – have been added. The only apparent short-coming is the lack of an index: one is constantly amazed at the short-sightedness of publishers in this respect. Otherwise this appears to be an invaluable handbook for the self-employed and the smaller business.

Basic business management: guidelines for the self-employed and the smaller business, by M. A. Peters. 2nd ed. Jordans Ltd, Jordan House, Brunswick Place, London N1. 1978. 88 pages, paperback £3.00 (plus 25p postage and packing) (ISBN 0 85308 051 8).

Factors for international success

Copies of the 'Barclays Bank report on export development in France, Germany and the United Kingdom: factors for international success', may be obtained price £25.00 (£20.00 each for orders of five or more copies) from the Publications Sales Unit, British Overseas Trade Board, Export House, 50 Ludgate Hill, London EC4M 7HU, or from Barclays Bank International, Department IAD, Goodenough House, 33 Old Broadstreet, London EC2P 2SE.

Timely arrival on mergers philosophy

With the Chrysler/Peugeot-Citroen merger still fresh in our minds and a monopolies commission investigation into the Lonhro/Suits take-over bid still in progress, Andrews and Rooks' 'Merging for profit' has made a timely appearance in the bookshops. As a concise handbook laying down the basic principles behind the merger process it should be of use to all those affected by its consequences.

A source of practical information generally unobtainable elsewhere, it deals with the 'philosophy' of mergers, including the reasons behind them, modes of 'synergy' (whereby a firm seeks to obtain a position where its combined performance is greater than the sum of the parts) – to every science its jargon – and a study of diversification and risk. Of particular interest is the section concerned with planning and effecting a take-over bid. The use of diagrams and imaginary case studies clarifies the subject and alleviates the dryness of the topic. And there is helpful advice on tax queries for both companies and individuals.

The book is particularly valuable for its topicality and useful technical supplement on taxation.

Merging for profit – how to win the take-over game, by Michael Andrews and Alan Rook. Financial Techniques Ltd, 1978. iv, 239 pages. £9.00. (ISBN 0 903 58306 2).

Structuring the take-over (from 'Merging for profit')

'Lancelot's bride is suddenly stripped of some of her assets'.

Departmental publications not sold through HMSO

This list includes material issued by the Departments of Industry, Trade, Prices and Consumer Protection, and Energy; the Monopolies and Mergers Commission; the Office of Fair Trading, and the Price Commission which was notified to the compiler during February.

Department of Industry

Regional policy and development grants division and Industrial development unit

Government aid for industrial development. 1979. 1 folded sheet.
Department of Industry, Regional Policy and Development Grants Division, Room 709, Millbank Tower, Millbank, London SW1P 4QU.

Research and technology requirements and space division

Mechanical Engineering and Machine Tools Requirements Board

Computer aided design and manufacture: survey of available systems and scope for their application in mechanical engineering. 1978. 54 pages plus appendices.
Department of Industry, Research and Technology Requirements and Space Division, Room 423, Abell House, John Islip Street, London SW1P 4LN.

Technology reports centre

R&D abstracts. Vol. 39, no. 1, 1 January.
R&D abstracts. Vol. 39, no. 2, 15 January
Available on annual subscription of £48 from Department of Industry, Technology Reports Centre, Station Square House, St Mary Cray, Orpington, Kent BR5 3RF; free to government departments and certain other official bodies.
Technical services for industry, 1977 edition: corrections and additions. 1979. 9 sheets.
Department of Industry, Technology Reports Centre, Station Square House, St Mary Cray, Orpington, Kent BR5 3RF.

Department of Trade

Accidents investigation branch

AIB bulletin, no. 2/79. 21 February 1979. 10 pages.
Department of Trade, Accidents Investigation Branch, Room 401, Kingsgate House, 66-74 Victoria Street, London SW1E 6SJ.

British Overseas Trade Board

Hints to Businessmen series (price £1 + 20p p & p each):
Tanzania. 1978-79. 56 pages.
Hints to Exporters series (price £1 + 20p p & p each):
Greece. 1979-80. 52 pages.
Jamaica, Belize and the Cayman Islands. 1979-80. 84 pages.
The Democratic Republic of Madagascar. 1979-80. 40 pages.
Malta. 1979-80. 36 pages.
Mauritius and Réunion. 1979-80. 64 pages.
Mozambique. 1979-80. 40 pages.
Sierra Leone. 1979-80. 44 pages.
Sudan. 1979-80. 64 pages.
Available from: BOTB, Publications Sales Unit, Export House, 50 Ludgate Hill, London EC4M 7HU. Available in UK only.

A library for exporters

Trade and other economic statistics from almost every country in the world, including the UK, are available for reference in the Statistics and Market Intelligence Library at Export House, 50 Ludgate Hill, London EC4M 7HU, tel. 01-248 5757 ext. 368/369, telex 886143 (DTI Export LDN). A modern well-equipped library of over 100 000 volumes, it has a public reading room equipped with microfiche readers and photocopying facilities. Among the documents available are foreign trade directories covering some 170 countries and selected trade fair catalogues.
The library is open from 09.00 to 17.30, Monday to Friday (last passes for the building are issued at 17.15).

The Japanese market for do-it-yourself and hobbycraft equipment. Prepared by the Sumitomo Business Consulting Co Ltd. 1979. 187 pages. £55.
BOTB, Publications Sales Unit, Export House, 50 Ludgate Hill, London EC4M 7HU. Available to UK companies only.

Civil aviation policy division

British Airways financial structure: report of review group. 1979. 8 pages.
Department of Trade, Civil Aviation Policy Division, Room 521, 1 Victoria Street, London SW1H 0ET.

Companies division

North Devon Railway Co Ltd, Words in Action Limited. Investigations under section 165(b) of the Companies Act, 1948. Reports by Brian Michael Hooper and James Michael Buttimer. 1979. 51 pages and appendices; 23 pages and appendices. £2.
Department of Trade Library, Room LG37, 1 Victoria Street, London SW1H 0ET. Cash with order; cheques to be made payable to the department.

Departments of Industry, Trade, and Prices and Consumer Protection

Common services

Economics and statistics division

Monthly review of external trade statistics, no. 40. January 1979. [142 pages.] £3.
BOTB, Publications Sales Unit, Export House, 50 Ludgate Hill, London EC4M 7HU.

Libraries

Department of Energy publications in print: December 1978, compiled by Graham Hurford. 1979 (revised edition). 34 pages.
Department of Energy Library, Room 1020, Thames House South, Millbank, London SW1P 4QJ.
National statistical offices of overseas countries 1978. 1978. 33 pages.

Statistics and Market Intelligence Library

Statistics Directories information, no. 6. October-December 1978. 17 pages.
Department of Trade, Statistics and Market Intelligence Library, Export House, 50 Ludgate Hill, London EC4M 7HU.

Department of Energy

Compare your home heating costs: an independent guide to the costs of different fuels and heating methods and how to reduce them:
Midlands and Northern edition. 1979. 18p.
Scottish edition. 1979. 18p.
Southern edition. 1979. 18p.
Welsh edition. 1979. 18p.
(All revised editions)
Department of Energy Library, Room 1020, Thames House South, Millbank, London SW1P 4QJ.
Energy management. January 1979. 8 pages.
Energy management. February 1979. 8 pages.
Department of Energy, Energy Management, Room 1395, Thames House South, Millbank, London SW1P 4QJ.
Grants for demonstrating new ways of saving energy. 1978. 1 folded sheet.
Department of Energy Library, Room 1020, Thames House South, Millbank, London SW1P 4QJ.

Energy commission

Minutes of fourth meeting, 1 December 1978. 1979. 14p.
Single copies available from: Department of Energy Library, Room 1020, Thames House South, Millbank, London SW1P 4QJ.

Office of Fair Trading

How to put things right. 1978. 1 folded sheet.
Office of Fair Trading, Information Division, Field House, Breams Buildings, London EC4 1PR.
Licensing: Consumer Credit Act 1974. 1978. 26 pages.
Office of Fair Trading, Consumer Credit Licensing Branch, Room 407/11, Government Buildings, Bromyard Avenue, Acton, London W3 7BB.
Pre-payment in non-mail order transactions: a consultative paper on a proposed reference to the consumer protection advisory committee. 1979. 11 pages. For distribution to interested organisations only.
Office of Fair Trading, Room F106, Field House, Breams Buildings, London EC4 1PR.

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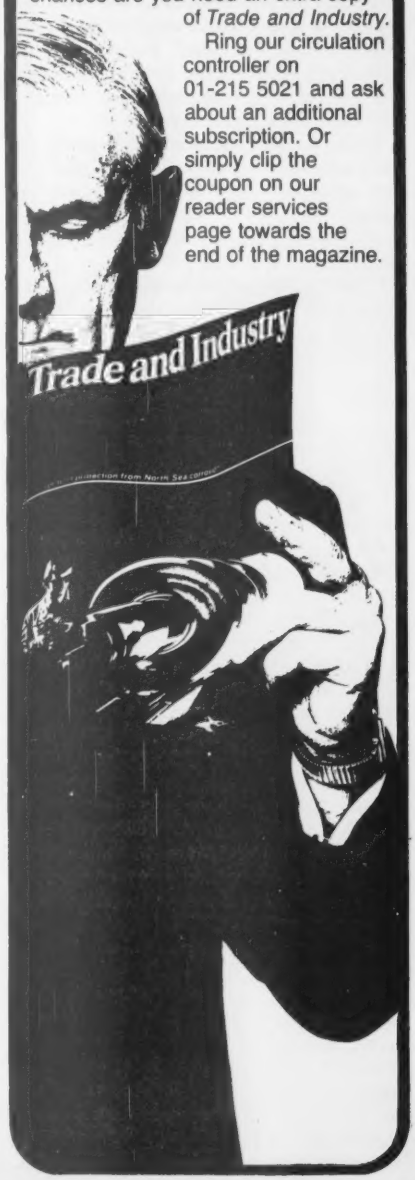


Technology news

Digital PABX on way for small businesses

All-electronic digital office phone systems will be made available next year by the Post Office. The new equipment harnesses the power of microprocessor control to provide small-to-medium-sized businesses with a wide range of new facilities. Up to now, these have been available only on the large tailor-made PABX installations supplied by private industry to big organisations.

Called customer digital switching system 1 (CDSS1), the new equipment will eventually replace existing PABXs supplied by the Post Office. With the small business system, announced recently, the Post Office will be able to offer a comprehensive range of advanced office phone systems.

Under its policy of getting new phone systems into service as quickly as possible, the Post Office is shortening development and launch timescales for CDSS1. Contracts are soon to be placed for first supplies of CDSS1 to be delivered early next year.

CDSS1 will ultimately be able to offer a wide range of facilities. Some of those available at the start are choice of dial or high-speed (multi-frequency) pushbutton phones; extension numbers changed directly, without Post Office help; and automatic diversion of calls to another phone so that they can be answered in someone's absence. Abbreviated dialling for frequently-called numbers, so that the full number need not be dialled, will be available. Users will be able to arrange to restrict particular extensions to certain types of call, such as local only, and incoming calls can be 'parked' while locating the person wanted, who can then pick up the call from any extension. Extensions can be grouped so that the next available free extension in the group is called if the first number is engaged. Various metering, and night-service arrangements will be available.

Contracts for CDSS1 production engineering were placed with Plessey Telecommunications Ltd and GEC Telecommunications Ltd in 1977. Now production contracts are being negotiated with the two companies under which they will supply the first production systems for installation in London and Scotland. Further supplies of CDSS1 will then be delivered to permit its phased introduction throughout the rest of the UK during the next few years.

Being wholly electronic, CDSS1 is much smaller than present-day electromechanical systems of comparable capacity. The equipment is housed in a single unit intended for siting in ordinary office accommodation. The operator uses a cordless desk-top console with a touch-sensitive panel in place of the traditional keys and incorporating a visual display unit.

One of CDSS1's main attractions is its modular basis – enabling it to grow with the firm. Simply by plugging-in more units in the equipment cabinet it can be enlarged progressively to the maximum size of about 20 exchange lines and around 100 extensions. Its stored program control enables each CDSS1 installation to be tailored to meet the particular requirements of each customer. Moreover, users may amend the program to change certain features and facilities.

CDSS1 will be offered as an alternative to the existing range of Post Office PABX systems, of which there are now more then 40 000 in service. Like the existing PABXs, CDSS1 will be offered to customers on a rental basis. The Post Office expects to announce tariffs for the new system towards the end of this year.

Sound engineering wins Design Council awards for medical equipment

Application of known engineering principles and well tried manufacturing techniques to meet specific requirements are exemplified in the four items which won the Design Council's 1979 awards for medical equipment.

An award was given to the Adjusaloc support arm of Mechanical Precision Engineering Co Ltd, Norfolk, because it was a design which provided, in a very practical way, a complete and safe system from which to suspend life support hoses to ensure maximum patient comfort following a tracheotomy or other intensive care situation. The judges were impressed by its mechanical simplicity and its freely moving double plane articulation which allows the patient minor movements during nursing procedures. The support arm is the result of close collaboration between Sister Rosemarie Strevens at the Norfolk and Norwich Hospital and Malcolm McGreadie, proprietor of Mechanical Precision Engineering. Her requirements for a stable but easily adjustable ventilator tube support were interpreted into the design and manufacture of the Adjusaloc which has been tried and proved in hospitals during the past 2½ years.

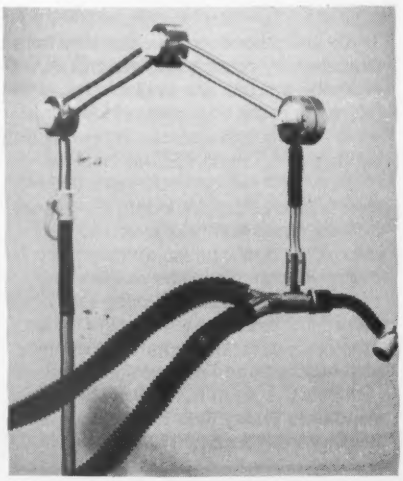
Corning Medical of Corning Ltd, Essex, won an award for its 460 automated flame photometer which automatically analyses samples and gives results which are vital to the diagnosis of different diseases and body conditions. It is an outstanding design which presents in a very compact and elegant case all the features essential to a fully automated biochemical analysis system including alarm faulting and self calibration during sampling procedures. The carousel which holds the samples is easy to load and all data is printed out very quickly after sampling. Simplicity of operation and excellent accessibility for maintenance are particularly strong features of the overall design concept.

A neatly-packaged pocket diagnostic set, containing a miniature ophthalmascope, otoscope, torch attachment, and accessories, won an award for Keeler Optical Products Ltd, Windsor. It provides, in one neat package, an instrument for examining the ear, nose and throat and a separate instrument for examining the eye. The battery containers act as handles for both instrument heads and are interchangeable. Excellent use has been made of modern plastics throughout the design of the instruments and their essential accessories.

The Radiochemical Centre Ltd, Amersham, won an award for its Technetium-99m sterile generator. This compact sterile generator provides a convenient, reliable and safe system for preparing radiopharmaceuticals for immediate oral or intravenous administration to patients. The total design concept has been well thought out and encompasses the packaging which is of sufficient proportions to ensure that the lead shielded radio-active container arrives complete with all essential accessories in perfect working order. The ease with which the generator can be loaded and left unattended to complete its operation cycle significantly reduces operator exposure to the effects of radio-activity.

It was evident to the judges that some of the 31 items of equipment submitted which did not get awards could have benefited from more attention being paid to design standards. Many of the smaller companies designing and

A flick of the wrist locks the Adjusaloc arms in position to ensure stable support for the ventilator pipes.



manufacturing specialised medical equipment should seek the help of research establishments to obtain guidance in the development of such equipment. Improved standards of design, say the judges, would aid better commercial exploitation.

Engineering students win prizes with practical projects

Designed to help the disabled, a partial-hand prosthesis, a semi-automatic page turner and the measurement of arm-joint movement are among the eight projects, undertaken by students on engineering diploma and first degree courses, awarded Design Council Molins design prizes on 2 March. Production engineering equipment featured in three projects, while the remaining two involved the application of sophisticated electronics to communication systems.

Encouraged to compete for the first year, non-degree engineering students have proved equal to the high standards set for the competition. Projects of two such students are among the prize winners. All the successful projects fulfilled the increased emphasis placed by the judges on design projects which demonstrated a real understanding of practical needs.

The Design Council Molins design prize is sponsored by Molins Ltd, international precision engineers. The competition is administered by the Design Council in association with the Institutions of Mechanical Engineers and Electrical Engineers. The objective of the competition is to encourage interest in the principles and practice of good engineering design.

The determination of Simon Morgan to resume an active life following a firework explosion which seriously injured his left hand has helped him win £150 and gain a commendation in this year's Molins design prize competition. His design and development of a partial-hand prosthesis which is both functional and cosmetic, yet relatively simple to make, was recognised by the judges as being a significant development in a highly specialised area of biomedical engineering. The project was part of his final year at the South Glamorgan Institute of Higher Education.

Research by Geoffrey Sedgwick, a British Aerospace sponsored student at Hatfield Polytechnic, revealed that existing page turning machines could not be relied upon to turn one page at a time. As a result of this investigation and the further study of four design concepts for a page turner which enables a quadripliegic to read a book while lying flat, he has designed and made a prototype low cost, but highly reliable, semi-automatic page turner as his project work for his BSc in mechanical engineering. This prototype has won him £250 in the competition.

A better understanding of 'morning stiffness' through improved methods for measuring joint movements during sleep may bring greater relief to rheumatoid arthritis and osteo-arthrosis sufferers. Durham-born Peter Roth undertook a study of existing measurement techniques during his final year at Durham University where he gained an engineering science BSc with honours. His

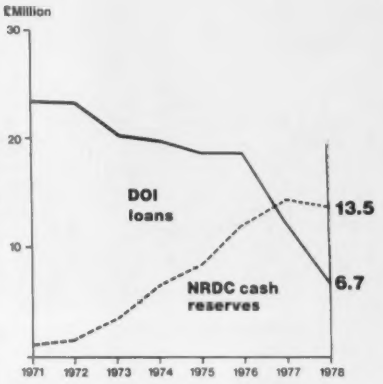
New NRDC drive to back innovation

In a new campaign to find and support technical innovation, the National Research Development Corporation (NRDC) has published a brochure describing the finance it can make available.

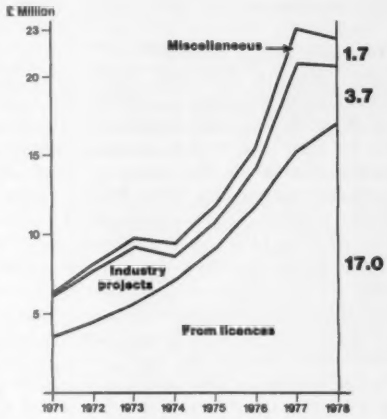
'NRDC: Finance for innovation' explains that projects supported must be based on a new invention or contain a genuine technical innovation but says evolutionary improvements which are significant in their industry may also qualify. Projects from all sectors can be considered, including products, processes and software, and the size of the company is immaterial – support is available for large, small or subsidiary operations.

A public corporation set up in 1949, NRDC has borrowing powers worth £50 million from the Department of Industry, but aims to be completely self-financing. In recent years it has repaid the greater part of its DoI loans. As NRDC marketing director Steven Dollond points out, the corporation's purpose is profit-making – not profit-maximising. Although NRDC is not a grant-giving body, it is prepared to absorb some risk in financing inventions.

The bulk of NRDC income is derived from its second activity – licensing inventions. And it is this activity which has contributed to the build-up of cash reserves which NRDC now wants to make available to back the development and exploitation of inventions.



NRDC, sources of finance . . .



. . . and of income.

Methods of finance

Although NRDC is open to suggestion on methods of finance, support currently available takes three forms. Under the first – joint-venture finance – NRDC will contribute an agreed proportion, normally 50 per cent, of the expenditure required for a specific project. The investment is recovered by means of a percentage levy on sales of the resulting product. Listing the advantages of this scheme Mr Dollond explains that NRDC shares the risk and, in the event of failure, takes its share of the loss – there is no obligation to repay the investment if for some reason sales do not materialise. At the same time repayments, which are limited in duration by a predetermined formula, are geared to sales so that if they fall short repayments are automatically reduced.

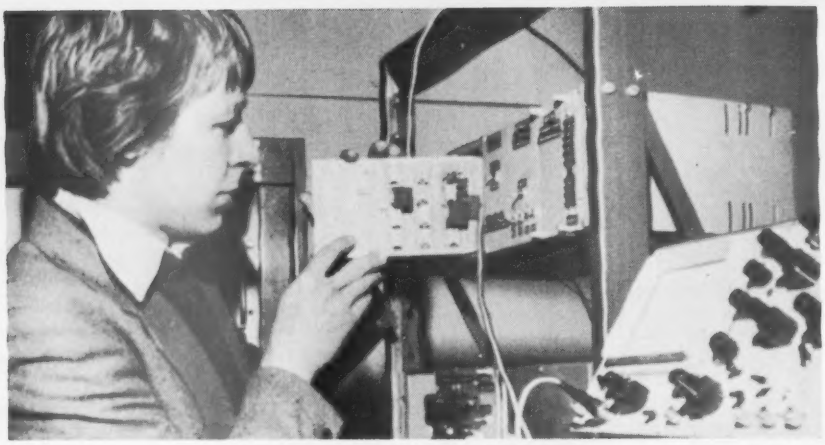
The corporation, which has designed the joint-venture scheme with technology-based projects in mind feels it is an ideal method of finance for subsidiary companies. And it points out that NRDC can provide in-house technical and patent expertise which is not generally available from other financial sources.

NRDC's second method of finance is a recirculating loan, a form of working capital loan to enable companies to meet specific orders for new technology products. For each firm order, NRDC can lend sufficient to cover the forecast manufacturing cost of the equipment, less any prepayment by the customer. When the equipment is delivered and payment received, NRDC would have first call on the cash for repayment of the loan.

NRDC can also offer equity and loan capital – usually where the development and exploitation of new technology forms an important part of the company's business. It could apply to the launch of a new company to develop a new idea or to the establishment of a subsidiary for a similar purpose. In either case NRDC would provide up to 49 per cent of the share capital plus an appropriate amount of loan finance.

In matters concerning the Department of Industry, NRDC's support counts as private sector finance so that companies which have received DoI or requirements board grants can apply to NRDC for additional finance; a firm which has been awarded a 25 per cent DoI grant, for example, can apply to NRDC for 50 per cent of the balance (37½ per cent).

For copies of the brochure or more information about NRDC finance, companies should contact the Marketing Director, National Research Development Corporation, Kingsgate House, 66-74 Victoria Street, London SW1E 6SL, tel. 01-828 3400.



Dominic Cameron's digital storage system enables flaws to be detected in complex electronic circuits.

subsequent design of a goniometer which can be worn by a patient as a method for measuring arm movements, and in particular elbow flexion movements, won him a £250 cash prize.

Automatic image transfer

Three students from the department of mechanical engineering, Loughborough College of Technology, have gained a commendation for their design of an automatic image transfer device for the speed printing of decorative ceramic tiles. Roger Belton, Ernest Charles and Paul Darley equally share a cash prize totalling £150. An investigation by the student group indicated that an automatic image transfer device could achieve appreciable economies in the labour intensive ceramic tiles decoration business. An infra-red, carbon dioxide laser provides the high power source required to melt the glaze and fuse the colouring matter on the substrate in a fraction of a second instead of 1 to 2 hours in kiln firing. A shutter controls the laser beam exposure and a pattern, generated by a computer, on a special kinoform mirror controls the area of decoration.

Digital storage system

Dominic Cameron gained a first-class honours degree in engineering science from the University of Edinburgh, school of engineering science (electrical engineering). His final year university project, which brought him a £250 prize in competition, was for the evaluation, design and construction of a system using digital techiques to store a large amount of information received from a slow data source and to supply it as a colour image to a high speed display. The objective was to provide such a means of display at a much lower cost than would be involved in the purchase of a commercially available system.

Data logger

A neatly packaged prototype data logger with an ergonomically effective control panel has won an equal share of £250 for University of Reading graduates Martin Brasier, Julian Bryant and Richard Rowlands. This group project was primarily undertaken to evaluate the RCA 1800 microprocessor series. The data logger incorporates analog to digital and digital to analog interfaces and a microcomputer programmed specifically to meet the system requirements. The compact operating software has been designed to give maximum flexibility of operation to the user. The data logger is sufficiently compact and portable to make it suitable for field work.

Keeping ahead of the competition was the motivation behind the development of a semi-automated sliding lug assembly machine by Stephen Appleby while a student at the department of engineering production, Loughborough University of Technology. The machine provides an improved method for locating the sliding lug in 'plaster depth' electrical switch boxes. Without the movement offered by the sliding lug, it would be impossible to square-up surface mounting wall switch plates on boxes which had not been squarely embedded in plastered walls. Considerable savings have been achieved with the introduction of this machine to a small family concern.

A cash prize of £150 goes to Martin Linda who was commended for his design of a teleprinter signal processor, his final HNC year project at the Dorset Institute of Higher Education. The teleprinter signal processor was designed to be used in a radio communications station to provide a link between the peripherals used in such an environment. Such functional modules as two teleprinters, a transceiver, a magnetic tape cassette machine and a paper tape reader are linked by an internal highway system which can allow communication either down three manually selected channels or through a routing network controlled by one transmit/receive switch.

High-accuracy grinding rig wins design competition

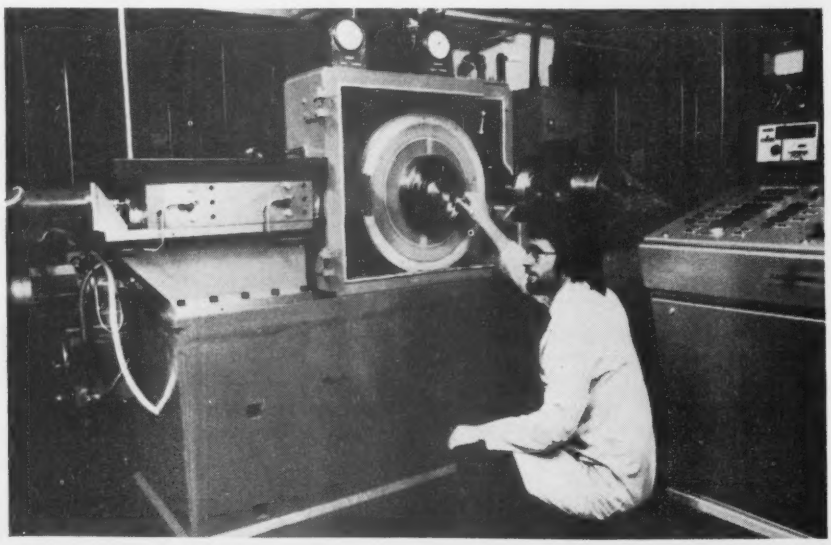
Winner of this year's national engineering design competition organised by the Institution of Mechanical Engineers was an experimental grinding rig incorporating a novel high-accuracy programmable control system designed and engineered by ASR Servotron Ltd of Congleton. The grinding rig was designed by John Liverton, a 28-year-old project engineer employed by T. I. Matrix Ltd and seconded to work on the Science Research Council sponsored grinding programme at Bristol University.

The new grinding machine is designed to investigate high stock removal using creep rotation plunge cylindrical grinding. This grinding process uses extremely slow workpiece speeds in the order of 1 rev/min but depths of cut of up to 5 mm on diameter. This combination of slow speed and deep cut is aimed at producing high rates of stock removal and a ground finish on one machine, obviating the need for a preliminary turning operation.

In the grinding operation, the grinding wheel rotates but the grinding wheel assembly remains stationary and the workpiece – and dresser when necessary – are fed to it. To achieve high machine stiffness, reinforced concrete is used for the machine base and hydrostatic bearings are used for moving elements.

With the exception of the motor driving the grinding wheel, all other drives – dresser slide, workpiece slide and workpiece spindle – are part of the ASR Servotron integrated control system. This system replaces the conventional hydraulic ram-stepping motor drive combination with dc permanent magnet servomotors and Servodriver transistor controllers. The high output torque produced by this combination obviates the need for the gearboxes and pulley systems required by conventional systems.

John Liverton with the experimental grinding rig at Bristol.



Closed-loop positional and speed control is effected through ASR Servotron Syndexer positioning systems. All the operator has to do is to enter into the system the diameter of the raw workpiece and the required diameter of the finished product. This done, the whole grinding sequence can be carried out automatically.

The system provides for a rapid traverse rate of the slides from home to operating position of 250 mm/min, a pre-selectable grinding feed rate of from 0.001 mm/sec to 1 mm/sec (a choice of from one to three different speeds in each programme) and a positional accuracy of 1 micrometre.

Although first installed on the experimental grinding rig at Bristol, the new control system is already in industrial use in a number of major engineering companies.

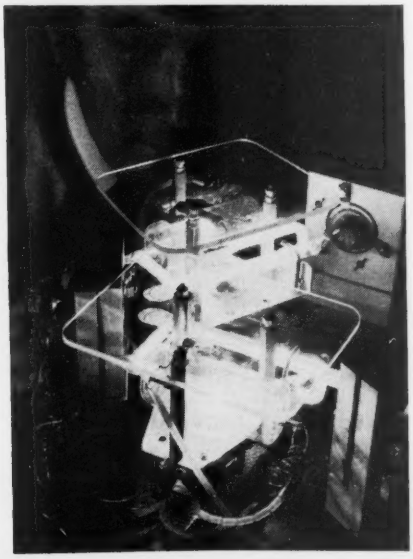
Laser gyroscope will not wear out

An inertial navigation system (INS) with no moving parts is the outcome of research at the Royal Aircraft Establishment at Farnborough into the ring laser gyroscope. The laser-based INS promises to be cheaper to operate, easier to install and, since there will be no moving parts to wear out, reliability should be high and maintenance low.

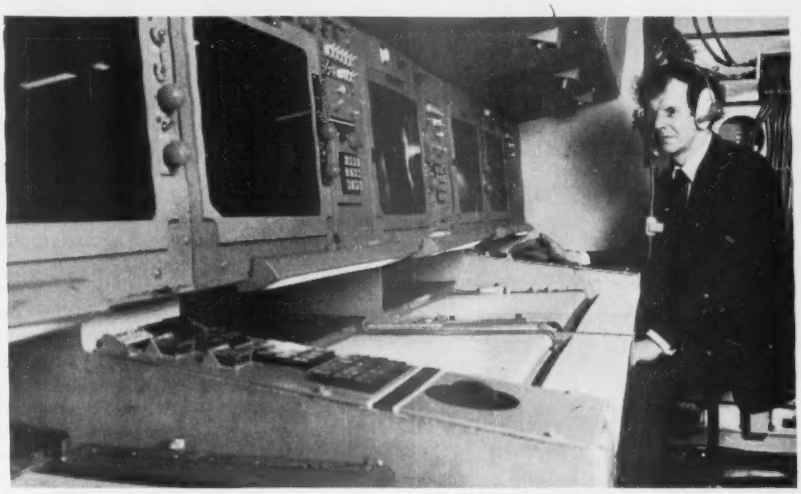
An experimental version has been developed to test the ability of the ring laser to sense rotation. The system is based on a block of quartz through which two red laser beams are transmitted in opposite directions – one clockwise, the other anti-clockwise. The time taken for each beam to complete one circuit is equal in both directions when the assembly is stationary. Rotation causes the beam travelling in the direction of rotation to take longer and the opposing beam to take less time.

This minute time difference is measured by counting the movements of an interference pattern created where the two beams interact. The difference is proportional to the angular rate of rotation and provides a non-mechanical alternative to the conventional spinning wheel gyroscope.

An alternative to the spinning wheel gyroscope.



Defence system finds submarines faster and more precisely



Frank Nicholas, project leader, with an aircraft installation of Marconi Avionics Ltd's AQS 901 acoustic processing and display system. Claimed to be the most advanced airborne anti-submarine defence system in the world, it is about to enter service with the British and Australian air forces. The system, which enables even the quietest, fastest nuclear submarine to be detected and located, has been developed as a co-operative UK and Australian government venture. It represents a major technical advance in that the signals, received by the aircraft from sonobuoys dropped in the water, can be processed very rapidly to give more precise information on submarines than has hitherto been available.

Automatic system speaks in-flight weather reports

Airline pilots are to receive spoken in-flight reports of weather conditions at UK and European airports (Volmet) by means of an automatic broadcast system bought by the Civil Aviation Authority. Designed and developed by Marconi Space and Defence Systems Ltd (MSDS), this new technique automatically converts airport weather reports, which are received every half-hour by telex at the civil aviation communications centre at Heathrow, into a human voice, and transmits them continuously on a maximum of four frequencies simultaneously.

When this system comes into operation, the voice, which will be heard by hundreds of pilots each day, will be that of retired Royal Corps of Signals officer Colonel John West, the marketing manager of the military communications division at MSDS laboratories. John West's voice, reading standard weather report phrases, words and figures, has been recorded in the Portsmouth studios of Telecomms Ltd, digitised at MSDS and stored in a computer memory. Incoming Volmet messages are decoded, and this information used to control the speech output from the computer memory.

Many other services could be improved using automatic voice response systems, such as weather and road condition reports, railway timetables and telephone directory inquiries. Announcement-type information services for airports and main-line railway stations could also be provided with standard messages in several languages. Interactive order/stock control systems could be provided which allow sales personnel to update rapidly order information over the telephone.

Letters to the editor

Letters to the editor should be addressed to the Editor, *Trade and Industry*, Eighth floor, 1 Victoria Street, London SW1H 0ET, and *not* to HMSO.

Cranes designed faster by computer

Computer-aided design techniques are speeding the production of Allerton Industries Ltd's new electric overhead travelling cranes. The complete structural and mechanical specification of a new crane can be obtained within minutes of feeding details into a computer.

In addition to saving design time, the most economic structure with regard to weight and cost is obtained for any load and span requirements. The precise hoist units and end carriages required for any particular application are also decided by the computer.

The production facilities at the Northallerton factory include an automatic twin-fillet welding gantry. An automatic hydraulic clamp holds the girders in place, and two welding heads enable two passes to be made each run, at a speed of 3.4 m/min. In the interests of safety, every butt weld is 100 per cent x-rayed, and 10 per cent of the fillet welds are subjected to a magnetic particle inspection.

Eighty people are employed in the production of Allerton cranes, which are single and double girder models with spans up to 30 m and lifting capacities up to 10 tonnes and 30 tonnes respectively. With computer design and its new production facilities, Allerton will be able to produce two to three cranes each week initially, with room for expansion.

New products

Freepost reader service

For further information on items in this section, circle the corresponding number on the reader services page near the end of the magazine.

UK source of oxidised waxes on stream

Carless Chemicals Ltd's 6000 tonnes-per-year oxidised wax plant came on stream in January, using petroleum wax fractions from the North Sea as feedstock. These oxidised waxes, to be marketed as Hypax intermediates, will find application in formulating a variety of end products ranging from corrosion inhibitors for automobiles to drawing lubricants and dressings for wire ropes.

Hypax oxidised waxes are a complex mixture of organic acids, lactones and esters produced by the controlled oxidation of selected wax fractions. They can be reacted like natural fatty acids. For example, they can be saponified with a number of metal oxides and hydroxides. The calcium soaps thus formed are particularly useful as a basis for formulating extremely cost-effective rust preventative compounds used in the automobile and industrial sectors.

Straight petroleum waxes, as obtained in the fractionation of crude oil, possess some inherent properties, such as the ability to form a film, which are an essential part of a rust preventative. The oxidation of petroleum waxes greatly enhances these basic properties and introduces polarity into the molecular structure, thus providing excellent adhesion to metals. This chemical transformation of petroleum waxes into tailor-made intermediates is achieved at relatively low cost.

The Hypax oxidation process produces an oxidate to within a narrow specification using a broad spectrum of waxes as feedstock. This ability to use a range of feedstocks provides further security for customers. Until now the European demand for oxidised waxes has had to be largely met from United States imports and supply has been uncertain due to the difficulties encountered by the manufacturers in obtaining the right grades of raw materials.

For companies formulating rust preventatives, Carless is offering a range of solvent or mineral oil diluted calcium soaps derived from Hypax oxidates. These soaps range from low melting point products giving soft tacky films to very high melt points (greater than 150°C) which give substantially dry, hard films.

Further information: circle 341

Melting points defined in direct view

A melting point determination apparatus has been developed by the Platfilm division of Rosemount Engineering Co Ltd, Bognor Regis. The apparatus which allows direct observation of the specimen under test, uses a 3 mm square Platfilm platinum resistance thermometer element as a precisely controlled heater platen. The platen is set in a mounting base made of low thermal conductivity material shaped to enable the complete assembly to be mounted on the stage of a standard microscope.

The small thermal mass of the heater enables it to reach the desired temperature very quickly – less than one minute being required to reach the maximum temperature of +300 °C. The cooling rate is of the same order. Specimens which may be of exceedingly small size are placed in pure aluminium, disposable dishes 2.3 mm diameter by 0.5 mm deep which are in turn placed on the platen.

The melting head is connected to a separate control unit which features digital indication of temperature of 0.1 °C accuracy. The heating rate is set by means of an easily adjustable control knob. It features a hold button which enables the observer to 'freeze' the reading at the instant the melting point is reached.

Further information: circle 342

Low-cost hydraulic fluid for offshore use

A new low-cost hydraulic control fluid for use on hydraulically operated offshore drilling blow-out preventor control circuits has been developed by Isaac Bentley & Co Ltd. It is claimed to have better performance characteristics than any other similar fluids. Erifon HD856 is a specially formulated synthetic fluid which is biodegradable and when diluted with fresh water forms a stable solution with good anti-corrosion properties.

Tests with the Baroid extreme pressure tester indicate excellent lubricating properties which minimise wear and increase durability of both seals and hydraulic components. The product gives a lower cost per mixed gallon and reduces the amount of fluid it is necessary to store on the rig.

A further feature of the new hydraulic fluid is its suitability for a wide range of operating temperatures. When mixed with ethylene glycol, it will operate at temperatures as low as −40° C. The fluid remains stable when contaminated with up to 20 per cent of sea water and is compatible with all types of seals. In addition, it contains a biocide and anti-fungicide, preventing the growth of bacteria or fungus in the blow-out preventer control system or fluid storage tanks.

Further information: circle 343

Rescue unit gets to the accident quicker

A versatile and compact road rescue unit, said to be capable of dealing speedily and efficiently with traffic accidents and other general emergencies, has been launched by HCB-Angus Ltd of the Dunlop group. The first unit was supplied to the Fife Fire Brigade.

The vehicle is fitted with warning equipment, an electric winch, floodlighting mast, portable generator and extension ladder, and can also carry fire extinguishers, cutting tools and other rescue equipment. The floodlighting mast gives near daylight conditions up to a radius of 33 m and extends from the roof of the vehicle to provide a clear illumination point for the rescue team and a warning to other traffic.

Intended as a front-line rescue vehicle, the unit can undertake emergency work before the arrival of larger appliances, or be used in areas where alternative equipment is unavailable. It is based on a Chrysler/Dodge W400 four-wheel drive chassis, with fully automatic transmission.

Further information: circle 344

Emergency work can be undertaken before the arrival of larger appliances.

European community news

Proposed directive on consumer credit adopted

Draft legislation put forward by the European commission aims at harmonising member states' laws on consumer credit. The commission has adopted a draft directive designed to remove some of the obstacles at present hampering a common market in consumer credit thus affecting competition within the EEC.

The proposal lays down minimum standards on consumer information and protection. Its scope is extremely broad, covering all credit agreements between consumers and lenders, including, for example, overdrafts and credit cards issued by department stores.

The directive states that enough information should be made available to allow the consumer to make a rational choice between the options open to him. He should be aware beforehand not only of the interest rates but also of any other costs he will have to meet as a result of taking up the loan, and of the duration of the credit.

The draft directive also covers the agreement being made available in writing, giving full details about the loan, so that the consumer is aware of the commitment he has to honour.

Another element of the directive is that credit lending businesses should either have an appropriate licence, or be subject to checks by official authorities. If not, a body should be set up to examine any complaints from consumers about credit agreements which they have requested, or which have been offered to them.

If the consumer is dealing with an establishment which has a connection with the organisation supplying the goods or services, then both these parties should be responsible for supplying the goods or services in strict accordance with the agreement. If this does not happen then both organisations will be jointly liable for refunding any money to the consumer which he may have paid.

If the credit body transfers its rights to a third party, the draft directive states that the consumer should not suffer loss or be put to any inconvenience and that the original credit arrangement should continue to be respected.

Consumers should also be free to end a credit agreement before the date stated in the agreement and in such a case should be entitled to a refund, the commission feels. The directive would also mean that the consumer's right could not be taken away by any contractual clauses.

More community news

Information on European community matters and about member states can often be found in other sections of *Trade and Industry*. For this week's additional news, turn to the following pages:

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Commission's approach to future budget financing 'sensible' – Davies

Present arrangements for financing the EEC budget bear no discernible relation to the ability of countries to pay. On the contrary, their effect is random and for the UK downright perverse. Minister of State at the Treasury Denzil Davies made this point in introducing a debate in the house of commons on 21 February on a number of European commission budget documents including 'Financing the community budget – the way ahead' (R/3185/78).

However, financing the budget was an issue which the community as a whole had to tackle in its own long-term interest, he said. The community had to ensure that its policies, taken as a whole, reflected an overall balance which corresponded to the community's long-term objectives and which were broadly acceptable to all member states.

This was manifestly not the case for the UK budget contribution at present. 'Our level of net payments is out of all proportion to our relative prosperity. The burden is growing every year. If it continues unabated, it will have an increasingly adverse effect upon our balance of payments despite the corrective supplied by the financial mechanism. It represents a very considerable resource cost to the British government and people.'

Clearly one of the keys to this problem was to find ways of curbing the present excessive level of expenditure on the common agricultural policy.

'This swallows more than 70 per cent of the budget and mainly benefits richer member countries. A major objective of this government is to put an end to the structural surpluses which account for the major share of spending and to bring some rationality into the pricing arrangements which are badly out of line with world markets.

'We are pursuing, and will continue to pursue, this objective irrespective of progress on any new own resources. But the scale and timing when existing own resources are exhausted will depend to a significant degree on the trend of agricultural expenditure.'

The commission's estimate is that the ceiling on own resources will be reached by the time of the 1982 budget, and Mr Davies said that a decision on a new revenue source would be needed this year to allow time for ratification.

In the document the commission makes a preliminary examination of a number of possible options. The first solution, the minister said, would be to raise the 1 per cent ceiling on the VAT rate. The commission's view was that this would have the virtue of simplicity, as VAT was already an accepted own resource and, in principle, a harmonised base had been agreed on.

The other options examined were taxes on cigarettes, alcohol, energy and additional personal and corporation taxes. All of these would pose practical difficulties, the minister felt, notably the absence in most cases of an agreed harmonised base for them. Furthermore, they would have a regressive effect for some countries, including the UK.

Denzil Davies: 'no discernible relation to country's ability to pay'.

The commission had also considered borrowing to finance a budget deficit but rejected the idea.

Mr Davis said these technical questions would be discussed in detail with other governments and the commision in the coming months.

'At this stage, I can say that the commission's general approach to the various options seems broadly sensible, though there are a number of points of detail which will need to be looked at very carefully,' he said.

The minister said the commission empha-

sised that any new revenue source could be looked at from the standpoint that it should not exacerbate existing economic disparities, known as the principle of non-regressivity, or that it should help to reduce these disparities, known as the principle of progressivity.

'The principle of progressivity is the familiar one applied to personal taxation,' he said. 'The higher the income bracket, the more sharply the level of taxation rises. There is no reason why this principle should not be applied for calculating contributions to our own resources, either new own resources or even existing VAT own resources.

'For example, if a degree of progressivity of 1.5 were applied, using gnp per head as the criterion of prosperity, a country with a gnp per head of 10 per cent below the average would on that basis pay 15 per cent less than the average,' he explained.

This was clearly an important issue, and the commission was to be congratulated for placing the idea of introducing progressivity before member government, Mr Davies said.

The introduction of this principle would be a significant step forward on the road towards bringing the level of contributions to the budget properly into line with the ability of countries to pay. Some of the more prosperous countries might regard the idea of progressivity with less enthusiasm than others, Mr Davies said.

Canada-EEC fish plan goes ahead

Fisheries minister John Silkin has now lifted the UK reserve on concluding a fisheries agreement with Canada.

In a parliamentary answer on 22 February the minister said that following the 20 February fisheries council (see *Trade and Industry*, 2 March, page 421) he had arranged a swap agreement with the Federal Republic of Germany.

The federal government had undertaken to transfer 1000 tonnes of the cod allocation for 1979 in Norwegian waters north of latitude 62 degrees to the UK, in return for 500 tonnes of redfish and 500 tonnes of saithe from the UK allocations.

The Germans were particularly anxious to see the Canadian agreement concluded quickly.

White lead agreement breaks competition rules

White lead companies operating an agreement to prevent a fall in white lead prices – due mainly to competition from substitute products – are infringing the EEC's competition rules, the European commission has decided. This is despite the fact that three companies concerned brought a new agreement into force in 1972 saying that it no longer related to EEC markets.

The agreement was first set up in 1971 between Associated Lead Manufacturers Ltd (ALM) – formerly two companies ALM and Mersey White Lead Co Ltd – BV Chemische Industrie en Handelsmaatschappÿ Wed. Hondorff, Block and Braet (Hondorff), and Lindgens and Söhne GmbH and Co (Lindgens). Its main provisions were: the fixing of overall export quotas of one-third each and the allocation of subquotas, and the designation of price leaders for each export market outside the then member states; quota balancing arrangements; and monthly notification and distribution of details of all export deliveries, broken down by country (including EEC markets).

Although this agreement was formally terminated in 1972 and a new one substituted, which stated that the agreement did not relate to markets in the EEC, in practice the parties continued to operate the old agreement by providing information relating to EEC markets and continuing to discuss unfilled or exceeded quotas, the commission has ruled.

The commission considers that these arrangements restrict competition, as the export quotas and exchange of information have as their aim the limitation and sharing of markets. Since the parties are restricting their ability to compete against one another in EEC countries, the agreement affects trade between member states.

This agreement cannot be exempted from the competition rules, under article 85 of the treaty of Rome, as it was not notified to the commission and is not within the classes of agreements which are exempt from notification under regulation 17. Accordingly, the commission has ordered the parties to terminate the agreement but has decided not to impose fines.

This decision re-affirms the commission's view that the competition rules apply to an agreement whose effects are felt within the EEC even though one or more of the parties are, or were, situated in non-EEC countries.

Further information can be obtained from the Department of Prices and Consumer Protection, Fair Trading Division 1b, Millbank Tower, Millbank, London SW1P 4QU, tel. 01-211 5122.

European social security ministers meet

Ministers responsible for social security from the 21 Council of Europe countries met at a conference held at the council's headquarters in Strasbourg on 5 to 7 March. Social security ministers from Finland and Yugoslavia also attended the conference.

During the two-day conference, ministers discussed the financing of social security, introduced by the Belgian delegation; the influence exerted by organisational structures and procedures on medical care costs, introduced by the French delegation; and the respective roles of health policy and medical care policy, introduced by the Austrian delegation.

Eric Deakins, Parliamentary Under-Secretary of State at the Department of Health and Social Security, represented the UK.

Council of Europe countries comprise Austria, Belgium, Cyprus, Denmark, France, Federal Republic of Germany, Greece, Iceland, Ireland, Italy, Liechtenstein, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey and the UK.

British daffodils win gold medals in Holland

British bulb growers have won two gold medals for their exhibit of 5000 narcissi representing over 100 varieties at the Royal Dutch Flower Bulb Association in Holland.

Over 1000 Dutch and European growers attended the exhibition, which featured the British daffodil display as the main attraction.

The daffodils, which were grown at the Ministry of Agriculture's experimental horticulture stations in Cornwall and Lincolnshire, were awarded one of the medals for the quality of the blooms which arrived in Holland in perfect condition in spite of a lengthy and cold journey through the snowdrifts and a night crossing of the North Sea. The second medal was for the display as a whole.

The UK grows the largest area of daffodils in the world – almost 4000 hectares, over two and a half times as much as Holland. Britain's export trade was worth £4½ million in the first nine months of 1978, with half the bulbs and two-thirds of the flowers going to the Netherlands. Britain also leads the world in narcissus research and the development of virus-free stock.

Seminar: distribution and EEC regulations

'Distribution agreements and the EEC regulations' is the topic to be discussed at a one-day seminar on 10 April at the Inn-on-the-Park, London.

The seminar, organised by Legal Studies and Services, will cover exclusive distribution agreements, selective distribution systems, the role and attitude of the European commission, territorial problems of distributorship agreements, agency agreements, and the manufacturer's point of view.

Information is available from Judy Weatherstone, Legal Studies and Services Ltd, Norwich House, Norwich Street, London EC4A 1AB.

Investigation probe into Brazilian bovine leather

The European commission will be investigating allegations that dumping is being practised or that bounties or subsidies have been granted on imports of certain bovine leather originating in Brazil and that this is causing injury to a community industry.

The product falls under CCT heading 41.02 B; 41.08; Nimexe code 41.02-32, 35, 37; 41.08-30. Those interested may make known their views in writing by 25 March.

Representations should be sent to the Commission of the European Communities, Directorate-General for External Relations, 200 rue de la Loi, B-1049 Brussels, and should be copied to the Department of Trade's Anti-Dumping Unit at Kingsgate House, 66-74 Victoria Street, London SW1E 6SJ.

The full text of the commission's announcement was published in the *Official Journal*, C49, 23 February.

Alleged dumping of alloy steel wire rod from Spain

Information has been received by the European commission indicating that dumping is being practised or that bounties or subsidies are being granted on imports of alloy steel wire rod not further worked than hot-rolled or extruded – CCT heading 73.15 BVb1, Nimexe codes 73.73-23, 24, 25, 26 and 29 – originating in Spain and that this is causing injury to a community industry.

In conjunction with the member states, the commission has accordingly begun examination of the matter at community level in accordance with recommendation 77/329/ECSC on protection against dumping or the granting of bounties or subsidies by countries which are not members of the European Coal and Steel Community, as amended by recommendations 3004/77/ECSC and 158/79/ECSC.

Information on the matter may be sent in writing to the Commission of the European Communities, Directorate-General for External Relations, 200 rue de la Loi, B-1049 Brussels.

Those interested may, by 24 March, make known their views in writing, in particular by replying to the questionnaire addressed to those known to be concerned and by providing supporting evidence.

Furthermore, the commission will hear those directly concerned who so request when making known their views to the commission, provided they can show that they have an interest sufficient to entitle them to express their views more fully.

It would be helpful if copies of all representations to the commission could also be sent to the Department of Trade's Anti-Dumping Unit, Room 348, Kingsgate House, 66-74 Victoria Street, London SW1E 6SJ.

Canadian pig iron investigations re-opened

Investigations by the European Commission into the alleged dumping of certain haematite pig iron from Canada have been re-started. The products are in CCT heading ex 73.01 B, Nimexe code 73.01-27.

The original investigations were ended in April 1978 on the grounds that there existed an undertaking by the relevant exporters that satisfied the commission that the introduction of protective measures were not then necessary (*Official Journal*, C100, 25 April 1978). This is no longer the case and the commission considers it necessary to re-open the anti-dumping/anti-subsidy procedure.

In conjunction with the member states, the commission has accordingly re-started examination of the matter at community level in accordance with recommendation 77/329/ECSC on protection against dumping or the granting of bounties or subsidies by countries which are not members of the European Coal and Steel Community, as amended by recommendations 3004/77/ECSC and 158/79/ECSC.

Any information on the matter may be sent in writing to the Commission of the European Communities, Directorate-General for External Relations, 200 rue de la Loi, B-1049 Brussels.

Those interested may by 24 March make known their views in writing, in particular by replying to the questionnaire addressed to those known to be concerned and by providing supporting evidence. Furthermore, the commission will hear those directly concerned who so request when making known their views to the commission, provided they can show that they have an interest sufficient to entitle them to express their views more fully.

It would be helpful if copies of all representations to the commission could also be sent to the Department of Trade's Anti-Dumping Unit, Room 348, Kingsgate House, 66-74 Victoria Street, London SW1E 6SJ.

New anti-dumping duty on Brazilian pig iron . . .

A provisional anti-dumping duty on certain haematite pig iron from Brazil has been imposed by the EEC commission. The full description is:

ex 73.01 B Haematite pig iron and cast iron (ECSC) in pigs, blocks, lumps and similar forms with a silicon content of more than 1 per cent and containing at least 0.1 per cent by weight of manganese, orginating in Brazil.

The rate of duty is variable and is designed to bridge the difference between the import price of a consignment and the basic price published by the commission. However, the amount of duty will be reduced to the extent that the importer satisfies Customs and Excise that an import price is lower than the basic price because of the inferior quality of the goods.

The duty is being collected on imports into the European community on or after 16 February.

The duty will not be collected on importation if the importer gives security of the amount of duty to Customs and Excise.

. . . on Spanish iron and steel products

The commission has also imposed a provisional anti-dumping duty on certain Spanish iron and steel products. The products are:

ex 73.11 A1 Angles, shapes and sections of iron and steel, not further worked than hot-rolled or extruded (ECSC) U, I or H sections of a height of less than 80 mm and H sections (broad flanged beams) U or I sections of a height of 80 mm or more originating in Spain.

The rate of duty is variable and is designed to bridge the difference between the cif duty-paid price of a consignment and the import reference price published by the commission.

However, the amount of duty will be reduced to the extent that the importer satisfies Customs and Excise that a cif duty-paid price is lower than the import reference price because of the inferior quality of the goods.

The duty is being collected on imports of these goods into the UK on or after 13 February.

The duty will not be collected on importation if the importer gives security of the amount of the duty to Customs and Excise.

. . . and on Romanian herbicide

A provisional anti-dumping duty at a rate of 40 per cent on the basis of the value declared has been imposed on imports of DNBP technical (Dinoseb) (falling within CCT subheading ex 29.07 C III or 38.11 D; Nimexe code 29.07-59 or ex 38.11-50, 70) originating in Romania and exported by Chimimportexport, Bucharest.

The duty came into force on 21 February (commission regulation 322/79) and the entry of this product into free circulation within the community will be conditional upon the deposit of security for the amount of the provisional duty.

Details are given in the *Official Journal*, L44, 21 February.

Bulgarian steel probe ended

Investigations into the alleged dumping of Bulgarian galvanised steel sheets and plates have been ended.

In the course of the investigation between the European commission and the Bulgarian government arrangements have been made that have satisfied the commission that the introduction of protective measures is unnecessary at present.

The opening of the investigations was announced on 24 January.

New legislation

The legislation listed below has been published in the *Official Journal of the European Communities* as indicated against each item. The *Official Journal* is published in English and copies should be obtained from HMSO. Information about the items listed, in so far as other member states' requirements are concerned, is available to British exporters from Department of Trade, Export Services and Promotions Division, Export House, 50 Ludgate Hill, London EC4M 7HU, tel. 01-248 5757 ext. 7174/482/408.

Common agricultural policy

The texts of the following regulations which affect the various agricultural sectors in the EEC have been published in the *Official Journal of the European Communities*.

Tobacco. Regulation (EEC) 313/79 amending articles 7 and 10 of regulation (EEC) 3389/73 laying down the procedure and conditions for the sale of tobacco held by intervention agencies (*Official Journal* L43, 20 February 1979).

Wine. Regulation (EEC) 333/79 amending article 1 of regulation (EEC) 3005/78 on the distillation for the 1978/79 wine year of wines suitable for producing certain potable spirits obtained from wine with a registered designation of origin. The date appearing in the second paragraph of article 1 is replaced by the date 15 March 1979 and in the third paragraph by the date 31 March 1979 (*Official Journal* L45, 22 February 1979).

Regulation (EEEC) 361/79 amending article 3 of regulation (EEC) 1163/76 on the granting of a conversion premium in the wine sector (*Official Journal* L46, 23 February 1979).

Oils, fats and oilseeds. Regulation (EEC) 360/79 amending article 1 of regulation (EEC) 3088/78 in respect of the periods of application for the 1978/79 marketing year of the representative market prices and of the threshold prices for olive oil (*Official Journal* L46, 23 February 1979).

Harmonisation of legislation

Labelling, presentation and advertising of foodstuffs. The *Official Journal of the European Communities* L33, 8 February 1979 contains the text of directive 79/112/EEC on the approximation of the laws of the member states relating to the labelling, presentation and advertising of foodstuffs for sale to the ultimate consumer.
Further information: Ministry of Agriculture, Fisheries and Food, Great Westminster House, Horseferry Road, London SW1P 2AE, tel. 01-216 6161. Copies of the *Official Journal*, L33, may be obtained from HMSO, price £1.20 plus postage.

Noise emission of construction plant and equipment. The *Official Journal of the European Communities* L33, 8 February 1979 contains the text of directive 79/113/EEC on the approximation of the laws of the member states relating to the determination of the noise emission of construction plant and equipment.
Further information: Health and Safety Executive, Section HSD D3, 25 Chapel Street, London NW1 5DT, tel. 01-262 3277 ext. 566. Copies of the *Official Journal*, L33, may be obtained from HMSO price £1.20 plus postage.

EEC pattern approvals. The *Official Journal of the European Communities* C47, 21 February 1979 contains a notice about EEC pattern approvals, published in application of directive 71/316/EEC on the approximation of the laws of the member states relating to common provisions for both measuring instruments and methods of metrological control. The pattern approvals are for meters for liquids other than water/ancillary equipment, non-automatic weighing machines, gas meters, alcoholometers and alcohol hydrometers, measures of length and cold-water meters. Copies of *Official Journal*, C47, may be obtained from HMSO, price £1.20 plus postage.

Imports from non-member states

The *Official Journal of the European Communities*, L44, 21 February 1979 contains the texts of the following decisions which authorise the relevant states to refuse entry to the specific goods. The decisions relate to varying periods; full details are set out in the relevant decisions.
Decision 79/203/EEC authorising France to apply protective measures to imports of live sheep falling within subheading 01.04 A I b) of the common customs tariff and sheepmeat falling within subheading 02.01 A ex IV originating in third countries and in free circulation in the other member states.
Decision 79/204/EEC authorising Belgium, Luxembourg and the Netherlands not to apply community treatment to men's and boy's woven breeches, shorts and trousers (including slacks); women's, girls' and infants' woven trousers and slacks, of wool, of cotton or of man-made textile fibres, falling within heading no ex 61.01 or subheading ex 61.02 B of the common customs tariff (Nimexe codes 61.01-62, 64, 66, 72, 74, 76; 61.02-66, 68, 72) (category 6), originating in Albania and in free circulation in the other member states.
Decision 79/205/EEC authorising Belgium, Luxembourg and the Netherlands not to apply community treatment to drawn or blown glass, falling within heading no ex 70.05 of the common customs tariff, originating in Bulgaria and in free circulation in the other member states.
Decision 79/206/EEC authorising France not to apply community treatment to toys made of wood or other (except motors and movement mechanisms for toys and working models used for recreational purposes and parts thereof), falling within subheading 97.03 A or ex B of the common customs tariff, originating in South Korea and in free circulation in the other member states.

Business opportunities in ACP states

The Centre for Industrial Development (CID) was created specifically to implement the objectives set for industrial co-operation under article 36 of the Lomé convention.
The centre actively promotes industrial investment in the 54 African, Caribbean and Pacific (ACP) member states as a means of accelerating their pace of industrialisation, to encourage the transfer of technology from the European Economic Community, and encouraging the exploitation of complementary resources for mutual benefit.
The centre is not political nor is it profit-seeking; it is impartial and does not favour any special country and observes industrial secrecy.
Trade and Industry will be publishing from time to time details of projects or companies in the ACP states who are looking for EEC partners. The latest list follows. Firms interested in following up these items should contact the Centre for Industrial Development, Avenue George Henri 451, B-1200 Brussels.

Ginger

Mauritius produces an annual crop of about 343 metric tonnes of ginger, nearly all of which is exported green to the United States and the UK. The value fob Port Louis is 1.2 million rupees. Mauritius seeks expertise to help to produce at lower cost and to add value to the green ginger before export. Those interested are invited to contact the centre (Ref. 79/6).

Flour mill

Burundi. A major industrial organisation in Burundi has government approval for the establishment of a flour mill. The planned annual production is: 6800 tons of wheat flour, 2140 tons of wheat bran, 1200 tons of maize grits, 3300 tons of maize flour, 780 tons of maize bran, 720 tons of maize germ. A detailed feasibility study is available from the centre. The promoters wish to establish contact with a company with extensive experience in this field and interested in a management contract. An equity participation is not essential although it would be welcome. Interested industrialists are invited to contact the centre (Ref. 29/J60).

Ignition coils and starter motors

Kenya. A company in Mombasa would like to assemble ignition coils and starter motors/solenoid switches. The scales of production are small (500 coils and 500 starter motors/solenoid switches a day), but the inquirer has existing factory space and is not demanding joint venture. Those interested may write direct to Mombasa, Kenya, PO Box 80127 (Ref. 79/J65).

Furniture

Jamaica. An established company in Jamaica wishes to expand its manufacture for export of products in local timber. The company is stated to have a long experience in this industry but to be having to come to terms with a cutback in local housebuilding. Jamaica qualifies under the generalised system of preferences for the United States trade on specific manufactured items. Knocked-down furniture in general draws only 8½ per cent duty. Production would also qualify for preferential entry to the community market. The centre would like to hear from industrialists interested in making an investment and co-operating with this company (Ref. 79/J144).

Ladies' clothes

Nigeria. Following import restrictions, in Nigeria, on the import of female garments, the centre has received a proposal for the establishment of a manufacturing facility to produce 12 000 dresses in the first year and 24 000 dresses a year thereafter. The proposal is based on dresses of a quality equal to those previously imported. Those interested are invited to contact the centre (Ref. 79/J165).

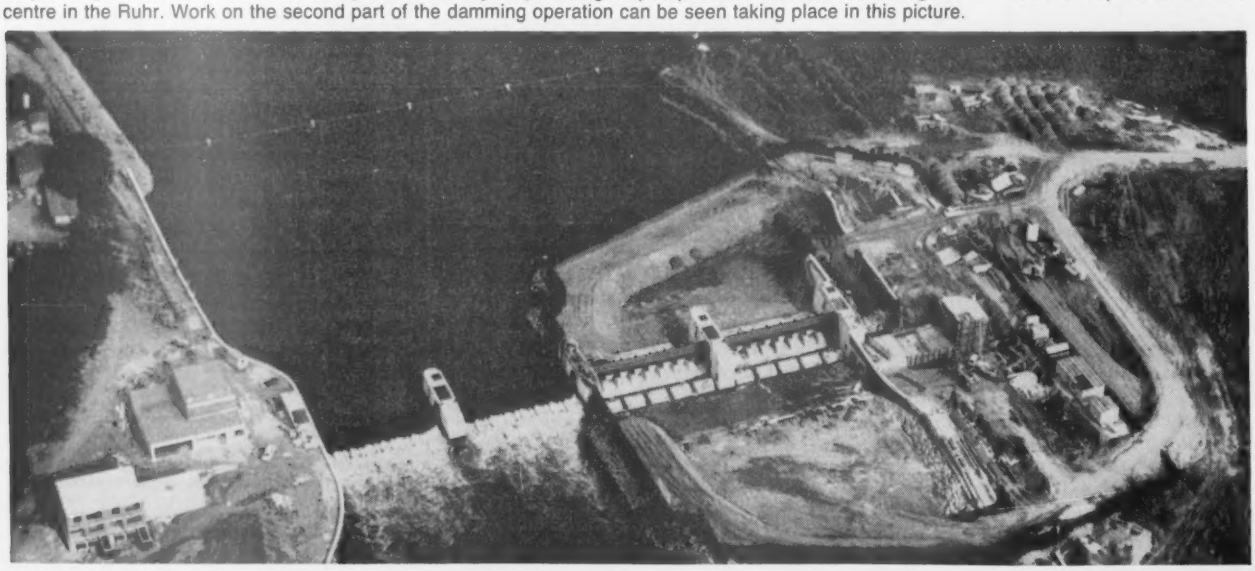
Refrigerators

Somalia. A company in Somalia is interested in starting production of refrigerators up to a capacity of 345 litre. The scale envisaged is a starting rate of 30 units monthly but increasing to 120 units monthly. The company needs technical assistance. Those interested are invited to contact the centre or to write directly to Mogadishu, PO Box 1804. The centre would appreciate being advised of progress (Ref. 79/J168).

Pineapple production

Liberia. The centre, jointly with firms in Liberia and the UK, has prepared a preliminary study for the establishment of a plantation of initially 200 hectares of pineapples, including some for treecrops such as avocados and mangoes. The report shows that the project is viable, and expressions of interest from banks in Liberia and the EEC for financing the project were received. Investment would be $1.8 million. The centre would like to establish contact with EEC companies interested in investment, management, and marketing.

Lloyd's Register Industrial Services surveyors in Germany are providing shop inspection services of four dam gates for a new water sports and leisure centre in the Ruhr. Work on the second part of the damming operation can be seen taking place in this picture.



Jirs conferences

PRODUCT LIABILITY

BRIEFING SESSIONS FOR SENIOR EXECUTIVES
(Two-day – non-residential)

at

The Falcon Rooms, Lords Cricket Ground, London

on

March 29th & 30th 1979 & October 11th & 12th 1979

These Briefing Sessions are recommended for:
all executives who have responsibility for product design, commission, production, promotion or alteration;
all executives who arrange for packaging, transport and passage of goods through the chain of supply;
legal advisers, both internal and external, who deal with standard contract terms, industrial injury claims and consumer injury claims;
persons performing detailed quality assurance functions, including quality control personnel;
others carrying out tests within or outside the manufacturing organisation;
law enforcement officers of central and local authority agencies who are charged with enforcement of occupational and consumer safety laws.

PRODUCT LIABILITY

Background and Content

Changes in occupational safety law have already meant that much more information about product use and defect has been placed in public knowledge. The Consumer Safety Act, 1978, will shortly be introduced into full force. An EEC Directive will introduce a regime of strict liability in respect of production of defective goods.

The changes in civil liability for defective goods, already implemented and soon to be introduced, will constitute a most dramatic upset of traditional legal arrangements on employers' liability, and liability of manufacturers and sellers to buyers, to other users, and to bystanders who are injured. Commercial significance of the changes will dwarf the impact of earlier product-related laws, including the Trade Descriptions Act, the Supply of Goods (Implied Terms) Act, the Consumer Safety Act and the Unfair Contract Terms Act.

Briefly, it is envisaged that any organisation which holds ***producer*** status will be liable in respect of death or injury caused by defect, ***irrespective of whether any design or production negligence is involved.*** This means that even manufacturers of component parts must pay far more attention to identifying hazards and proper use. They must communicate instructions and advice to those who are lower in the manufacturing and supply chain. And if all producers do not take such steps, they may be held responsible for death or injury stemming from inappropriate use.

At a time when these dramatic changes are being brought into force, occupational safety law in the UK has developed so as to ensure that a great deal of detailed technical information, hitherto regarded as confidential, will be made generally available. This means that the people who have been injured, or have suffered deterioration in health, will be far better able to identify the cause of their conditions than has been the case in the past. More claims by employees, buyers, other users, and bystanders can be anticipated when a new regime of strict liability is introduced.

The seminars will cover the present UK law on defective products and compensation; criminal and civil control over manufacture, advertisement, distribution, and sale of dangerous products; radical changes proposed by the Royal Commission, the Law Commissions, the Council of Europe and the EEC; the need for rapid scrutiny of current commercial contracts; arrangements to accommodate changes in the law; arrangements for recall of dangerous products; insurance in respect of product liability.

Objectives and Benefits

The primary objectives of these seminars are: to alert industry to the implications; to advise on how attenders should establish systems which will guard against issue of defective products with related civil and criminal consequence; to ensure that producers have redress where products are used in circumstances other than those recommended by them; and to identify the criteria which should be taken into account in assessing insurance coverage arrangements.

Presentation

Each course will devote attention to individual attenders' problems. Fullest opportunity will be allowed to put questions and make observations. Where for reasons of confidentiality attenders do not wish their identities to be disclosed, written questions may be submitted in advance. To facilitate this, standard question forms will be sent on enrolment and, if returned, will be considered when settling the final programme.

Arrangements

Reservation of places: please use detachable form provided and return with payment calculated on basis of prices quoted below. Advance question forms, entrance tickets and VAT invoice will be sent in acknowledgement of reservations. Additional forms can be obtained from the organisers.

Documents: course documentation is issued on arrival.

Timetable: attenders should register between 08.30 and 09.30 hrs. on the first day. Documents will be issued and coffee served during this period. On each day formal sessions will begin at 09.30 hrs. and close at 16.30 hrs.

Refreshments: light refreshments will be supplied at the morning break (10.40) and afternoon break (15.20). Drinks and Lunch will be served (12.30 to 14.00 hrs).

Cost: inclusive of documents and refreshments is £280.00 per attender, subject to the reductions and other conditions indicated on this form.

Attendance Certificates: are issued to attenders on request.

Accommodation: the Conference Secretariat will be pleased to advise on the availability of hotel accommodation in the area.

Payment Rates

1 ***Industrial Relations Briefing*** subscribers only

Amount should be calculated on the basis of the following prices:

1 to 3 places	@	£280.00 per attender
4 to 10 places	@	£240.00 per attender
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Payment should be sent with reservations and the amount should be calculated on the basis of the following prices:

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Additional forms can be obtained from the organisers (address & phone no. overleaf).

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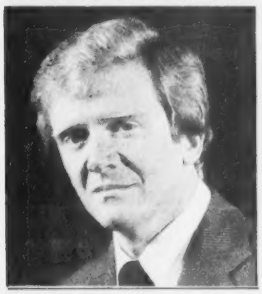
DISCUSSION LEADER



Bowes Egan, the discussion leader, was previously legal adviser to the Consumer Safety Council, and sometime contributor to the Times, the Sunday Times, the Solicitor's Journal, the Law Society's Gazette, and many other professional and specialist journals. Mr Egan has written more than twenty management guidance books that are used widely in the United Kingdom and in other jurisdictions. These include: ***The Customer and the Law; Trade Descriptions – The New Law; Standard Contracts and Sale of Goods; Health and Safety – The New Law; Safety Policies; Appointment and Functions of Safety Representatives;*** and ***Safety Inspections.*** He is joint author of the widely acclaimed ***Management Guide to Product Liability***, which was published in November 1978. This book is derived from the most detailed and coherent analysis of product defect problems that has yet been undertaken.

ORGANISERS

These product liability courses are arranged by ***Jackson's Industrial Relations Services Limited*** of 346 Harrow Road, London W9 2HP, (Telephone: 01–289 1158, Telex 28468). Inter alia, the organisers provide advisory and consultancy services on new legislation and publish the ***Industrial Relations Briefing.*** The ***Briefing*** is a specialist practical guidance sheet which has devoted particular attention to changes in safety law. It is used as a guidance source by almost every major employing organisation in the United Kingdom, including the largest public companies, government departments, local authorities and other public authorities.

JIRS conferences

THE CONFERENCE SECRETARIAT

Jackson's Industrial Relations Services

346 HARROW ROAD, LONDON W9 2HP

Telephone 01–289 1158. Telex 28468

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Directors: A Barber, G Capp, E Doris, B Egan, M Egan

Economic Progress Report Supplement/March 1979
A Treasury Broadsheet

The Industrial Strategy

Manufacturing industry in Britain provides roughly a third of total output, roughly a third of the jobs in the country and over two-thirds of the goods we export. Its performance is therefore crucial to our prosperity, whether measured in terms of living standards or the level of social provision we can afford. That is why government, management and trade unions have been working together over the past three years on what is called the "Industrial Strategy". The aim is to improve the overall competitive performance of manufacturing industry and increase its productive capacity so that Britain can become a more prosperous country. This broadsheet looks at what the Industrial Strategy is about and how it works.

Since 1945 Britain has had one of the fastest rates of economic growth in its history. But it has not been as fast as those in other manufacturing countries. In particular, our rate of growth of industrial production has been lower and our share of world trade has declined. Some of the facts and figures illustrating this relative industrial decline are set out in the table and charts. Since 1960 industrial output has grown twice as fast in West Germany — and four times as fast in Japan — as in the United Kingdom. Low industrial output has led to low profits, low investment and low growth; in times of economic upturn imports have been sucked in and export orders lost because industry has been unable to meet the extra demand. At the same time the ability of manufacturing industry to provide jobs has declined. In other words, a vicious circle of low growth leading to low growth has been created. The overall result is that many of our competitors have become more prosperous than Britain, so that their people now enjoy higher standards of living.

The problems

Many explanations for this relatively poor industrial performance have been put forward — for example, insufficient investment, low labour productivity, too many and too frequent changes in economic policy, insufficient funds for investment. There has also been the problem of social attitudes to work in manufacturing industry — there is a good deal of evidence that this is poorly regarded in comparison with other careers, so that industry does not attract enough people of the high quality required.

But although it is obvious that such factors are crucially important, they do not tell the whole story. The fact is that some sectors of Britain's manufacturing industry have done extremely well by international standards; and that even in those sectors which have done poorly there are individual firms

which have done exceptionally well. So the need is to identify not only the general problems which have held back manufacturing industry but also the particular problems which have held back a particular sector of industry; to find effective ways of dealing with both the general and the particular problems; and to ensure that the right action is being taken by the right people. The Industrial Strategy is a mechanism for doing this.

The Industrial Strategy was launched by the National Economic Development Council in late 1975*. The National Economic Development Council — "Neddy" — brings together leaders of government, unions and management to discuss Britain's economic and industrial problems and ways of overcoming them. This "tripartism" is central to the way the Industrial Strategy works. "Sector Working Parties" (SWPs) for some 40 individual sectors of manufacturing industry (see back page) — covering about 40 per cent of total manufacturing output — bring together representatives of government, management and unions to analyse their own industry in detail and to agree a programme of action designed to improve each sector's competitive performance so that it takes a larger share of home and overseas markets.

In other words, there is no question of trying to impose unrealistic plans and targets from above. Management and union representatives on the SWPs ensure that proposals for action are practical whether at sector, company or factory level, while the government representatives see that government is made aware of the action that it needs to take to support industry's efforts.

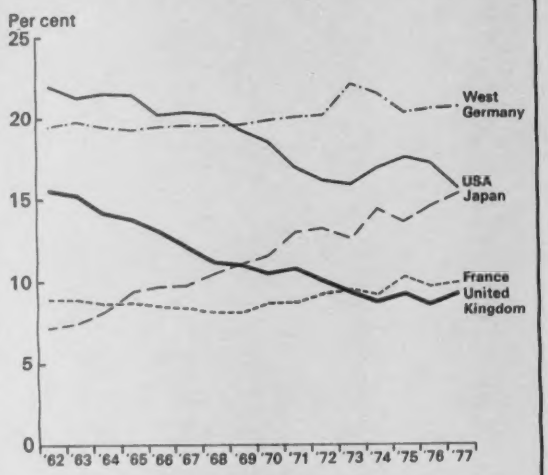
Improving performance

The basic objective of the Industrial Strategy is for Britain to become "a high-output, high-wage economy . . . by improving our industrial performance and raising the growth of productive potential" — this is how the 1975 White Paper puts it. Because Britain is a trading nation, that means winning a bigger share of home and overseas markets by competing more effectively in every respect. And that in turn means:

- getting more out of existing investment and manpower so that we increase productivity and can cut the costs of our goods;
- increasing the level and quality of investment so that we have more of the right type of manufacturing capacity;

*See the White Paper, *An Approach to Industrial Strategy*, Cmnd. 6315, November 1975.

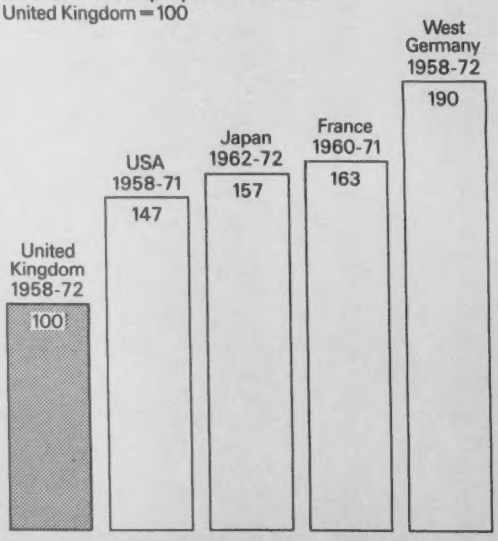
Share of world trade*



* Main manufacturing countries' exports of manufactured goods.

Measuring efficiency

Increase in net output per unit of investment
United Kingdom = 100



Note: The period of comparison for each country has been chosen to eliminate distortions due to cyclical influences.

Some international comparisons (Percentages)

	United Kingdom	West Germany	France	USA	Japan
Volume of exports of manufactures: average annual growth 1960-76	5	9	9	7	15
GDP per head at constant market price: average annual growth 1960-76	2	3½	4	2½	7½
Industrial production: average annual growth 1960-76	2	4½	5	4½	10

- improving the "non-price" competitiveness of our goods — their design, quality, reliability, delivery, back-up service and similar factors;
- concentrating on the right markets for our products;
- making sure that we have enough people with the skills industry needs.

These are the sort of thing the tripartite SWPs have been tackling, working to annual programmes which build on each other.

Progress

As a first stage the SWPs analysed the short-term difficulties facing their particular sectors and recommended ways of overcoming these problems. The SWPs then analysed performance, agreeing objectives for gaining improved shares of home and international markets and ways of increasing competitiveness so as to achieve these objectives. This has involved studies and recommendations on things like investment and productivity, manpower and training, product design, development and standardisation, the identification of markets, marketing techniques and export finance. Already many of these recommendations have been put into practice or are being actively considered; and the emphasis in the SWPs' current work is on communicating them to management and workers in individual firms – because it is they who will have to take action if the long-term programme to improve competitiveness is to succeed.

At the same time — and often as a result of SWP recommendations — the Government has taken a number of steps in direct support of the Industrial Strategy. Since 1975, for example, 16 special schemes providing government financial assistance to encourage investment by various sectors have been introduced, the latest providing assistance for the microelectronics industry. The Market Entry Guarantee Scheme has been set up, to help towards the cost of going into new export markets, while the range of government facilities for export finance has been improved and extended. And extra finance has been provided for government and industry training schemes.

Moreover, when the Industrial Strategy started the Government made a commitment to give more weight to the needs of industry in shaping the other policies which affect it. This has been done, for example, in areas like education policy and local planning procedures, while SWP recommendations are taken into consideration when the Budget is being put together.

Action such as this provides the essential back-up for the work of management and unions at company and plant levels. But in the final analysis it is only action at these levels — action by individual managers and workers to improve the competitiveness of the goods they produce — which will enable the objectives of the Industrial Strategy to be achieved. If competitiveness is not improved, the result can only be the continued relative industrial decline of Britain, and the further falling behind of our standards of living.

INDUSTRIAL STRATEGY MAKE IT WORK

Finding out about the Industrial Strategy

It is very difficult in a short publication to give a full idea of how the Industrial Strategy works and the progress it has made so far. However, many of the Sector Working Party reports have been published and are available — along with a number of other publications on the Industrial Strategy — from Neddy: National Economic Development Office Bookshop, 1 Steel House, 11 Tothill Street, London SW1H 9LJ.

The TUC has also prepared a number of publications particularly designed to help trade unionists involved in the Strategy work and including a regular newsletter, *Industrial Strategy Spotlight*. These are available from TUC, Congress House, Great Russell Street, London WC1B 3LS.

Finally, the Department of Industry's weekly magazine *Trade and Industry* includes a monthly guide to developments in the Strategy, called *Strategy News*. Copies can be obtained by ringing 01-215 5021.

Understanding industry

If manufacturing industry in Britain is to improve its competitive performance over the long term it will need to employ more well-qualified and well-trained people. The problem here is that many young people place a low value on work in industry, partly because of insufficient understanding of its importance and partly because of industry's poor image — we hear a great deal about the "aggro" in industry but relatively little about the satisfaction a job there can provide.

A large number of schemes have been developed over the past couple of years to increase contacts between industry and education and improve understanding among young people of what industry is about. Information about these schemes can be obtained from the Industry/Education Unit at the Department of Industry (Room 356, Ashdown House, 123 Victoria Street, London SW1E 6RB), which provides support for many of the schemes.

The Sector Working Parties

Automation and instrumentation
Clothing*
Constructional steelwork
Construction equipment and mobile cranes
Cotton textiles*
Diesel engines
Domestic electrical appliances
Electronic components
Electronic computers
Electronic consumer goods
Fluid power
Food and drink industries*
Food and drink machinery
Footwear
Foundries
Heating, ventilating, air conditioning and refrigeration equipment
Heavy electrical machinery
Industrial electrical equipment
Industrial trucks
Iron and steel
Knitting
Machine tools*
Man-made fibre production
Mechanical handling equipment
Mining machinery
Office machinery
Paper and board
Petrochemicals
Pharmaceuticals
Plastics processing
Printing
Printing machinery
Process plant*
Pumps and valves
Radio communications, radar and navigational aids
Rubber processing
Specialised organics
Telecommunications
Textile machinery
Wool textiles*

*In these sectors, Economic Development Committees (EDCs) have taken on the functions of SWPs. EDCs were originally set up under the aegis of the National Economic Development Council (established in 1962) to consider problems in their particular industries.

Additional copies of this Broadsheet may be obtained from Information Division, HM Treasury, Parliament Street, London SW1P 3AG.

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ECGD cover for overseas fairs

As a supplement to the ordinary insurance policy exporters have with Export Credits Guarantee Department (ECGD), cover is available for goods exhibited at fairs overseas against the rather special risks involved.

The standard cover includes sales at overseas fairs
Sales made at overseas fairs are covered under the standard ECGD policy against eventualities of loss, such as the insolvency of the buyer or his default, or exchange difficulties preventing transfer of payment from the buyer's country.

Special cover
Under a special policy supplementary to an exporter's main policy, ECGD can cover also the risks of loss arising while the goods are being exhibited or are on their way to be exhibited.
The risks covered are loss caused by destruction or damage resulting from war (including 'civil war, hostilities, rebellion and insurrection') occuring in the country where the goods are being exhibited or in a country through which the goods are travelling on their way to be exhibited,
or war between any of the countries involved,
or the requisition or confiscation of the goods in these countries,
or any measure or decision in the country where the goods are exhibited which prevents their re-export to the UK.
For more information about this special cover, get in touch with the nearest regional office of ECGD.

ECGD's head office is at Aldermanbury House, Aldermanbury, London EC2. There are regional offices in:

Central London 01-437 2292 **North London** 01-808 4570 **South London** 01-686 9921 **Belfast** Belfast 31743 **Birmingham** 021-233 1771 **Bristol** Bristol 299971 **Cambridge** Cambridge 68801 **Glasgow** 041-332 8707 **Leeds** Leeds 450631 **Manchester** 061-228 3621.

International Product Liability Workshop

LET THE SELLER BEWARE!

is the watchword for British companies faced with near bankruptcy after accidents caused by defective products. Many brokers refuse to even consider writing product liability insurance and rate increases of 100 per cent are not unusual. America's top court strategist and expert witness, Byron Bloch, will be joining with Danish Advocate, Dr Jur. Jorgan Hansen, ex-CBI Legal Advisor, Ivor Hussey, British Safety Council's Director General, James Tye, and Lloyds Broker, David Burrows, to show you how to keep out of court by using the latest 40 point comprehensive checklist. Byron Bloch will show exclusive film footage of U.S.A. court proceedings and explain how plaintiffs court strategy is formulated.

Programme covers:

- ★ Definition of Product Liability
- ★ Proposed U.K. Product Liability Legislation
- ★ Visual Briefing of the EEC Directive
- ★ Explanatory memorandum
- ★ A practical approach to Product Safety
- ★ Building an effective Product Safety Programme
- ★ The British Safety Council's 40 Point Check List
- ★ How to measure management involvement in the Product Safety Programme
- ★ How to use the Product Liability Audit
- ★ Existing Product Liability Laws in other EEC countries
- ★ The anticipated effect of conforming to the EEC Directive
- ★ The present problems of exporting to other EEC countries
- ★ Comparison of U.S. Product Liability Law and EEC Directive
- ★ Current proposals being considered in Westminster
- ★ The U.K./U.S. proposals for convention on mutual recognition of judgements
- ★ Insurance market reaction to the EEC proposals
- ★ The effect of the purchase of Product Liability Insurance
- ★ The insurance problems in exporting to the U.S.A. and Canada
- ★ Territorial limits and jurisdiction clauses
- ★ Recall cover
- ★ Discovery of documents in the U.S. and in the U.K.
- ★ Analysis of a 15 point check list on vulnerable risk areas and recommendation on how to reduce the risk

SENIOR EXECUTIVE BRIEFINGS
Division of THE BRITISH SAFETY COUNCIL

DATES: 25 '26 27 March 1979 VENUE HOTEL INTERCONTINENTAL LONDON W.1
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Overseas trade news

Trade secretary to visit Egypt

John Smith, Secretary of State for Trade, will visit Egypt from Thursday 19 April to Monday 23 April, as the guest of Dr Hamed El Sayeh, Egyptian Minister Economy and Foreign Trade.

In this, his first visit to the Middle East, Mr Smith will hold economic and trade talks with Egyptian ministers and officials.

Mr Smith's visit will be reinforced by a high-level mission from the Committee on Middle East Trade (Comet), the area advisory group of the British Overseas Trade Board. The mission will include top industrialists and a trade unionist and will pursue opportunities for increased trade with Egypt.

In a statement about his visit Mr Smith said that Egypt was a country of considerable potential and he would be promoting the case for Britain's full participation in Egypt's development.

He pointed out that there were several areas of opportunity for British companies, particularly in housing, communications, construction and transport. 'Firms can do well if they consider joint ventures with the Egyptians,' he said 'Britain is already successfully participating in a number of manufacturing joint ventures. The presence in Egypt, during my visit, of the Comet mission will enable constructive and practical discussions on future business to take place.'

Last year Britain's exports to Egypt were £205.6 million, mainly machinery, transport equipment and telecommunications equipment. Imports, mainly raw cotton and other primary product, totalled £107.7 million.

British instruments for Egypt

A batch of chart recording and monitoring systems, manufactured by Servis Recorders (Industrial) Ltd, of Gloucester, receives a final check before being despatched to Egypt. They will be used to record progress on earth movers and other heavy plant. The order, placed by Behera SA of Alexandria, is for over 90 000 recording charts, 80 recording instruments, 150 spare clock mechanisms and a wide variety of spares.

Smith to talk on Asian trip

Trade secretary John Smith, will address a joint meeting of the London Chamber of Commerce and Industry and the Malaysia/Singapore Commercial Association at the Carpenter's Hall on 20 March.

He will discuss his recent visit to Malaysia, Singapore and Thailand, markets which continue to demonstrate substantial economic growth.

Details can be obtained from Susan Blanchard, London Chamber of Commerce and Industry, tel. 01-248 4444 ext. 306.

British pavilion at Baghdad event

A British pavilion is being organised by the British Overseas Trade Board at Baghdad international fair provided there is sufficient response from industry. The fair, to be held from 1 to 15 October, is a well-established annual event covering a wide range of capital and consumer goods and services.

Iraq is one of the largest oil producers in the world and is thought to have oil reserves second only to that of Saudi Arabia. It is expected that a major part of this year's budget will be spent on development projects, including agriculture and irrigation, sewerage and water supply equipment, building construction, communications and electrical equipment.

Over the past few years UK exports to Iraq have risen steadily and at £215.5 million for 1978, show a further increase. However, as a result of an embargo on British imports into Iraq introduced last August, little new business has been placed with UK since then.

Iraq is a country of such potential that exporters should maintain an interest in it, BOTB states, and be in a position to take early advantage of the lifting of the embargo. Even if the embargo is still in force in October, it is expected that exhibitors will be permitted to sell their exhibits at the end of the fair. The closing date for applications is 30 March, and details are available from Graham Lyndsell, Room 115, Hillgate House, 26 Old Bailey, London EC4M 7HU tel. 01-248 5757 ext. 7314.

Minister to visit Hanover fair

Stanley Clinton Davis, Parliamentary Under-Secretary for Companies, Aviation and Shipping at the Department of Trade, and Jim Wilks, chief executive of the British Overseas Trade Board, will visit British firms exhibiting at the Hanover fair which takes place from 18 to 26 April.

Apart from the host country, Britain will again be the largest exhibitor at this international industrial trade event which is certainly one of the most important fairs in western Europe.

More than 200 British firms will be at Hanover this year – with 133 of these companies in 12 joint ventures sponsored by the British Overseas Trade Board in conjunction with trade organisations. Together these 12 groups will form one of the largest British displays to be supported by BOTB this year.

Scatter mission to Caribbean

A 10-day scatter mission to the Caribbean is being organised by the West India Committee, the area advisory group for the Caribbean to the British Overseas Trade Board. The mission will start in Suriname on 23 June.

Those taking part in the mission will be expeçted to spend two days in Suriname before pursuing individual itineraries within the Caribbean area.

The committee feels that Suriname has particular potential for the following British exports: transport equipment, agricultural and mechanical handling equipment, structural iron and steel, builders hardware, chemical and earth-moving equipment.

Details can be obtained from the Executive Trade Secretary, West India Committee, 48 Albemarle Street, London W1X 4AR, tel. 01-629 6354.

The closing date for applications is 23 March.

BOTB report charts increased use of services

Britain still has a lot to go for in trade with the EEC and should do all it can to make membership of the community work for the UK's future prosperity. This is the belief of Sir Frederick Catherwood, chairman of the British Overseas Trade Board, writing in the foreword of BOTB's 1978 report. He said that the UK's share of the German market was increasing but the French share was still more than twice the British share.

There are substantial prospects in the European partnership 'if we work for them, since it is hard to see any but the bleakest prospects for us outside the EEC'.

On the work of the board, the report mentions particularly the new market entry guarantee scheme introduced in January 1978. In its first year of operation the scheme has attracted over 120 applications and some 30 ventures have been accepted in principle. About 70 per cent of applications could result in agreements.

The report gives details of government expenditure on export promotion – estimated at £71.9 million for the year ending March 1979. The largest single item of expenditure is on overseas trade promotions and the report states that in 1978 there was an increase of about 5 per cent over 1977 in the number of companies participating in overseas trade fairs under the board's sponsorship. There was an even more marked growth in the use of the board's outward mission scheme with a 12 per cent increase in the number of missions in 1978 over 1977 and, during the same period, a 25 per cent rise in the number of participants.

Also, there was an increase in the number of paying subscribers to the board's Export Intelligence Service – from 7415 on 1 January 1977 to 7637 a year later.

The report says that in the financial year ended 31 March 1978, 338 market research projects received help from the export marketing research scheme. In the current financial year – ending March 1979 – there has been a steady increase in the number of applications being received and consequently the board has, in its financial estimates, provided for a continuing high level of demand for assistance under the scheme.

The report mentions the important contribution of the public sector to Britain's exports (see special report in *Trade and Industry*, 23 February). For the financial year 1977-78 the public sector's visible exports reached some £1,500 million to which the newly nationalised shipbuilding and aerospace industries contributed over £800 million.

Among other subjects covered in the report is the work of the board's Exports to Japan Unit and the report emphasises that the rise in the value of exports to Japan continues to outpace the increase in Britain's global exports. The report states that the Overseas Project Group gave assistance during the year to British firms concerned with some 300 overseas projects.

The report also contains summaries of the activities of the British Overseas Trade Advisory Council, the board's 16 area advisory groups and the Export United campaign which' says the report, 'has successfully maintained the impetus of Export Year, and many new companies, including some of the country's largest exporters, have joined'.

Copies of the report are available from the Publicity Unit, British Overseas Trade Board, 1 Victoria Street, London SW1H 0ET, tel. 01-215 5492.

Use of resources in export promotion

£ million

	1978-79	1977-78
Collection and dissemination of market intelligence	16.9	15.7
Trade promotions	21.9	21.3
Of which		
Overseas trade fairs (including symposia)	16.6	16.2
British Export Marketing Centre, Tokyo	1.1	0.9
Outward missions	2.8	2.9
Other	1.4	1.3
Help to individual UK exporters	12.0	10.1
Of which:		
Assistance to capital goods export projects	3.3	3.1
Export marketing research and advice	0.9	0.7
Market entry guarantee scheme	0.8	Nil
Assistance to UK businessmen visiting overseas and help to exporters in overseas representation	4.5	4.0
Other	2.5	2.3
Information and publicity	12.8	13.4
Of which:		
Overseas information service	8.2	9.0
Inward missions and individual business visitors	2.3	2.2
Other	2.3	2.2
Miscellaneous, including administration and planning	8.3	7.8

BOTB chairman to visit Plymouth

Sir Frederick Catherwood, chairman of the British Overseas Trade Board, will visit Plymouth on 29 March to meet leading exporters.

This is one of a series of visits to principal industrial companies designed to keep industry and the British Overseas Trade Board in touch with each other, and to generate interest in the 'Export United' campaign.

During the day, Sir Frederick will visit Tecalmit, Marine Projects, and Ranco Europe. In the evening, he will meet industrialists and trade union representatives to discuss export prospects.

Over £2.5m expected from Japan mission

Birmingham Chamber of Industry and Commerce expects £2,530,700 worth of orders to result from one of the British Overseas Trade Board's missions to Japan which took place at the end of last year.

The figure includes four orders totalling £352,700 taken and confirmed during the mission, and £2,178,000 worth of orders which are expected to result during the next 12 months.

Catherwood tours lift-making factory

Sir Frederick Catherwood, chairman of the British Overseas Trade Board, discusses the manufacture of a hub and spider assembly with Ken Berrill, a machinist at the Express Lift Co in Northampton. Sir Frederick toured the company's factory on 21 February when he visited firms in the area as part of the Export United campaign.

Certification schemes information published

A publication giving details of the major international certification and approval schemes in use in over 90 countries has been published by Technical Help to Exporters (THE), the export advisory service of the British Standards Institution. THE believes it to be the only publication of its kind.

'International certification and approval schemes' provides concise information on the activities of the leading international and regional bodies involved with conformity certification. It gives general information about many schemes and details about how they are operated. Complementary information about the international organisations concerned in the schemes is also given, together with lists of participating countries and organisations.

The schemes covered are: the CB scheme; CEE approval marks scheme; Cenelec protocol agreements; Cenelec Har agreement; CECC harmonised system; Iecqa system; CEN certification system; ECE harmonisation and conformity certification scheme; EEC

schemes under article 100 directives; and schemes co-ordinated by Efta.

Copies, price £15 to THE members and £20 to non-menbers, can be obtained from the Sales Office, Technical Help to Exporters, British Standards Institution, Maylands Avenue, Hemel Hempstead, Herts, tel. 0442 3111.

Chamber offers temporary accommodation

Temporary office accommodation is available at the British Chamber of Commerce France in Paris.

The chamber says that in its experience the type of firm that could use this service is one that is planning to enter, or thinking about entering, the French market and requires a temporary base for about three to six months.

Such firms can use the office of the chamber, keep confidential papers locked away and have their own telephone. The chamber can also provide bilingual secretarial service, telex, and a full range of information and advisory services.

Details can be obtained from the Secretary General, British Chamber of Commerce France, 6 Rue Haldwy, 75009, Paris, France.

'Look boss, don't you think my work might improve if you posted me to Paris for six months?'

Going to Bogota?

Depending on the number of UK participants, the British embassy in Bogota is considering the provision of an information stand at Colombia's agriculture fair in Bogota from 13 to 22 July.

It will be Colombia's major trade fair this year. Exhibitors must present their products grouped by type and there will be no national displays. From an information stand, the embassy would direct inquiries to UK participants in various sections of the fair grounds.

It would help co-ordination of arrangements if participants could inform the embassy of their interest as soon as possible.

UK manufacturers who already export to Colombia should encourage their agents or associates to consider joint participation, the embassy states. Those who have not yet entered the Colombian market should consider taking part in association with a local firm.

Exhibits will include livestock, agricultural machinery and implements, fertilisers, insecticides and other agricultural chemicals, veterinary equipment, and machinery involved in the processing and packaging of food, beverages, concentrated feeds, leather goods and timber products.

Agriculture provides 30 per cent of Columbia's gnp and 40 per cent of exports. Overseas trade was in surplus in 1977 and will probably show a small deficit for 1978. Foreign reserves of about US $2360 million in December 1978 were the highest ever.

British exports to Colombia of about £50 million in 1978 represent 4 per cent of the market. There is room for substantial improvement, the embassy states, and the fair in Bogota could provide a springboard to an improved performance in an expanding market worth over US $5000 million in 1978.

The embassy's address is: British Embassy, Calle 38, 13-35 Pisos 9-11, Bogota. (Airmail address: Apartado Aereo 4508, Bogota.) Tel. 698100, telex 44503.

Hints to exporters booklets

Revised editions of the booklets on Mozambique and Greece have been published.

These booklets can be ordered by post, accompanied by the appropriate remittance, from the Department of Trade, Publications Sales Unit, Export House, 50 Ludgate Hill, London EC4M 7HU, at £1 per copy, plus postage and packing as follows: 1 copy 20p, 2 to 4 copies 30p, 5 to 7 copies 40p, more than 7 post free.

Copies may also be purchased by personal callers at Export House and at the offices of the Department of Industry at Newcastle upon Tyne, Cockermouth, Manchester, Leeds, Nottingham, Birmingham, Bristol; from the Scottish and Welsh Offices and from the Department of Commerce, Belfast.

Chemicals and fibres loan backed by ECGD

A loan to help finance contracts awarded by Polish buyers to UK exporters for the supply of UK-produced chemicals and artificial fibres is being backed by the Export Credits Guarantee Department. Valued at $30 million, the loan is being made available by the National Westminster Bank to Bank Handlowy w Warszawie.

Exporters will receive 85 per cent of the contract price from the loan; the remaining 15 per cent is payable from the buyers' own resources.

To qualify under the terms of the loan a contract must have a minimum value of $100,000 and be placed by 26 February 1980.

Exporters interested in this facility should contact Mr C. J. N. Luby of ECGD (tel. 01-606 6699 ext. 7574) or Mr C. J. Cheesman of National Westminster Bank (tel. 01-588 6122 ext. 2464).

New Seatag chairman

Guy Checketts, deputy chairman and managing director of Hawker Siddeley International Ltd, has been appointed chairman of the British Overseas Trade Board's south-east Asia trade advisory group (Seatag) by Sir Frederick Catherwood, chairman of BOTB Mr Checketts succeeds Denis Rooney, executive vice-chairman of BICC Ltd, who has been chairman of Seatag for three years.

Mr Checketts is also a member of BOTB's east European trade council and is on the council of the London Chamber of Commerce and Industry.

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التجارة العربية الانكليزية

Trading with Cameroon seminar

Due to great demand for places, the venue of a 'trading with Cameroon' half-day seminar on 22 March has been changed. More people can now be accommodated.

Details about the seminar, organised by the tropical Africa advisory group of the British Overseas Trade Board, can be obtained from the Department of Trade's commercial relations and exports division, tel. 01-215 5334.

Ghana: water supply fails

Britain's high commission in Accra, Ghana, reports a major breakdown in the public water supply. The breakdown is likely to last for some time. And confirmed reports of cholera have been received from Ghana's eastern region.

In addition Kotoka international airport will be closed for a fortnight from today (9 March).

More information can be obtained from the Department of Trade's commercial relations and export division, tel. 01-215 3064.

Export control on antiques and collectors' items

The text of an open general export licence dated 19 February 1979 relating to aircraft and helicopters was published in *Trade and Industry*, 2 March, page 431. The licence was issued as a consequence of the Export Goods (Control) (Amendment No. 2) Order 1979.

In section 'a', subsection ii, the words 'having a maximum all-up weight of 680 kg or more . . . or to, compasses and gyroscopic apparatus' apply to items in both subsections (i and ii). The following layout for section 'a' makes the matter clear:

a Aircraft and helicopters other than:

i aircraft and helicopters, of the piloted or pilotless type, specially designed or adapted for military purposes,

ii other helicopters over 4530 kg empty weight,

having a maximum all-up weight of 680 kg or more and incorporating or equipped with equipment specified in the entries in group 3 relating to communication, navigation, direction-finding and radar equipment, or to compasses and gyroscopic apparatus.

Notices to importers

Issued by the Department of Trade, Import Licensing Branch, Charles House, 375 Kensington High Street, London W14 8QH. Telephone inquiries should be addressed to the number at the end of the notice.

1732: imports from Peru of Tanguis and Pima yarns and fabrics

Notice to importers 1727, (*Trade and Industry*, 19 January) stated among other things that in the case of Peru, categories 1 and 2 did not include yarns or fabrics of Tanguis or Pima qualities, and that separate quota facilities would be announced for these goods.

The 1979 levels for imports into the UK of these goods, originating in Peru are as follows:

Category/Tariff heading/Description	Quota
1 ex 55.05 Cotton yarn of Tanguis or Pima qualities, not put up for retail sale	51 tonnes
2 ex 55.09 Other woven cotton fabrics of Tanguis or Pima qualities	50 tonnes

Inquiries: Import Licensing Branch, tel. 01-603 4644 ext. 367.

1733: imports of iron and steel from the German Democratic Republic and the Soviet Union

Following consultations with the community, imports into the UK of certain iron and steel products originating in the German Democratic Republic and the USSR will remain subject to quantitative restriction. The following quotas will apply for the calendar year 1979:

Tariff heading/Description of goods	Quantity (tonnes)
GDR – 43 000 tonnes, of which not more than:	
73.08, ex 73.12, ex 73.13 Hot rolled coil	2 000
ex 73.13 Plate over 9.5 mm thick	25 000
ex 73.13 Cold reduced sheet	13 000
ex 73.07, 73.09 to ex 73.12, ex 73.13 to 73.15, 73.18 Any other single product [1]	6 000
USSR – 15 000 tonnes	

[1] For the purposes of this quota, any other single product is to be interpreted as meaning any complete four-figure tariff heading except in the case of those products previously specified in the table above.

The following products originating in the German Democratic Republic or the USSR may therefore still be imported into the UK only under the provisions of a specific import licence issued by the Department of Trade:

Tariff heading/Description of goods
ex 73.07 Blooms, billets, slabs and sheet bars (including tinplate bars), of iron or steel, rolled
73.08 Iron or steel coils for re-rolling
73.09 Universal plates of iron or steel
73.10 Bars and rods (including wire rod), of iron or steel, hot-rolled, forged, extruded, cold-formed or cold-finished (including precision-made), hollow mining drill steel
73.11 Angles, shapes and sections, of iron or steel, hot-rolled, forged, extruded, cold-formed or cold-finished; sheet piling of iron or steel, whether or not drilled punched or made from assembled elements
73.12 Hoop and strip, of iron or steel, hot-rolled or cold-rolled
73.13 Sheets and plates, of iron or steel, hot-rolled or cold-rolled
73.14 Iron or steel wire, whether or not coated, but not insultated
73.15 Alloy steel and high carbon steel in the forms mentioned in headings 73.06 to 73.14
73.18 Tubes and pipes and blanks therefor, of iron (other than of cast iron) or steel, excluding high pressure hydro-electric conduits

Licensing arrangements

The quota for the USSR will be administered by Import Licensing Branch and will be allocated to traders on the basis of their past trade. Traders seeking an allocation from the quota should send their applications on form ILB/A to reach Import Licensing Branch at the address shown above not later than 23 March. Page 1 of the form should be completed; on page 2 only question 1 need be answered; on page 3 and copy, the applicant's name and address, description of goods, tariff heading and countries of consignment and origin should be entered. Traders will be informed of their allocations as soon as possible after 23 March.

For the quota relating to the GDR, the method of allocation has yet to be decided. Traders should, however, complete their applications as described above; these applications should be submitted accompanied by a statement of past trade by the applicant in the categories specified in the first table of this notice, supported by a report by a qualified practising independent accountant on a form for this purpose which is available from Import Licensing Branch.

Letters of credit

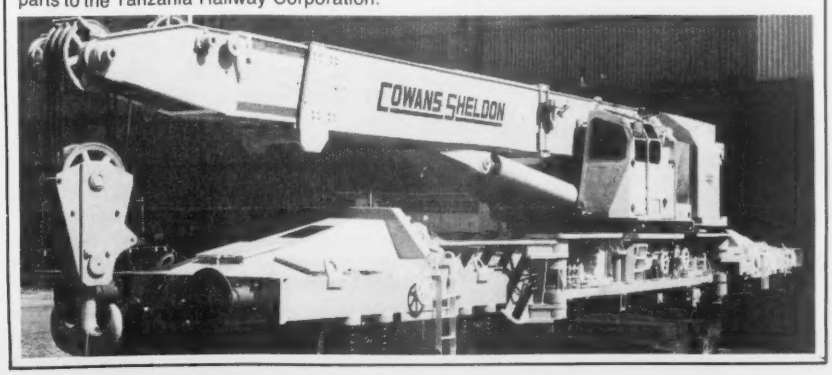
Traders are reminded that current exchange control regulations for goods subject to quantitative restrictions prohibit banks from opening letters of credit or amending those subsisting unless they are satisfied that a valid import licence has been issued for such goods.

Re-export

Applications for iron and steel products intended for re-export will be considered separately against satisfactory evidence.

Inquiries: Import Licensing Branch, tel. 01-603 4644 ext. 388/389.

Rail breakdown cranes made by Cowans Sheldon, part of NEI Clarke Chapman Cranes of Carlisle. The company has an order worth more than £500,000 for supplying a crane and spare parts to the Tanzania Railway Corporation.



MARKET REPORT: URUGUAY

Not so off the beaten track

Sandwiched between Argentina in the west and Brazil to the north, Uruguay is often overlooked by the British exporter visiting south America. Gillian Samuel explains why a side trip to Montevideo could prove surprisingly worthwhile.

If you're in Buenos Aires, they said, try to get to Uruguay. Uruguay, I thought, that's a bit off the beaten track surely. I could not have been more wrong. As it turned out, Montevideo was within commuting distance of Buenos Aires – a flight of London-to-Manchester proportions, and probably nearer to the Argentine capital than its second city, Rosario. It costs nothing in fact to make a stopover there if you're en route to Rio de Janeiro or Sao Paulo from Buenos Aires.

But if your business is in Argentina or Brazil, what can a small country, about the size of England and Wales with a population of just under 3 million, offer? Is there more than a relaxing pace, a pleasant climate and inviting beaches?

British businessmen once thought so – before the last war. It was they who built and ran the country's infrastructure – everything from mains water and gas, a dry dock, railways and tramways to a meat-processing plant (frigorifico). And when the handover of the gas and dry dock company was settled late in 1977 an editorial in Uruguay's *El Pais* reflected on the British contribution in glowing terms: 'while it is proper to feel pride in occupying the place which until recently was occupied by the British, we can do no less than render a tribute of admiration and gratitude to those pioneers who have incorporated into our language, our customs and our economy, many of their own characteristics. . . .'

Sadly the loss of Britain's paramount position in Uruguay has resulted in a decline in investment, which currently stands at under £10 million, and in trade. We now have a smaller share of the market than some of our EEC partners (see page 498). It goes without saying that Uruguay's dominant commercial partners are her large neighbours in the Latin American Free Trade Association, Brazil and Argentina. Brazil, for example, is a main purchaser of Uruguayan meat, and both are making determined and successful efforts to win an even bigger slice of the market. Two recent British business missions, from the London Chamber of Commerce and Industry and the British Agricultural Exports Council (Hereford Herd Book Society), were in good company: there have been similar visits from France, the Netherlands, West Germany, South Africa, Taiwan, Spain, Italy and Egypt. But if the competition's tough, we have one important advantage. Our historical links in Uruguay have left a considerable fund of goodwill towards Britain and British goods, provided of course that we can compete in price, quality, performance and credit terms.

Uruguay is making a determined bid for foreign investment and its Industrial Promotion Law and Foreign Investment Act of 1974 offer generous facilities for the remittance of profits, as well as tax and tariff incentives. Not unnaturally. though, a country with such a small domestic market is hardly a big draw for foreign investment and bankers and financiers still remember the rescheduling of Uruguay's foreign debt in 1974, although all has now been repaid.

Montevideo: within commuting distance of Buenos Aires.

Three resources

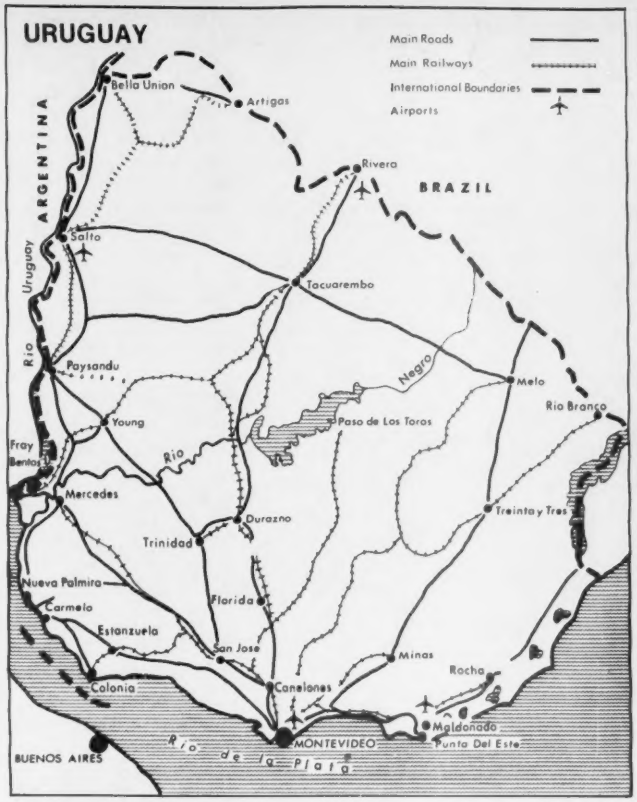
Against this, it is important to remember Uruguay's three valuable resources. The first is her geographical position on the northern bank of the River Plate estuary between two of south America's fastest-growing markets. Uruguay has traditionally provided a base of supply, especially to Paraguay and Brazil, and access to northern Argentina via Montevideo and road links is regarded by some as preferable to the more tortuous route north from Buenos Aires. There are also the beginnings of an entrepot trade to Paraguay via the Uruguayan free port of Nueva Palmira.

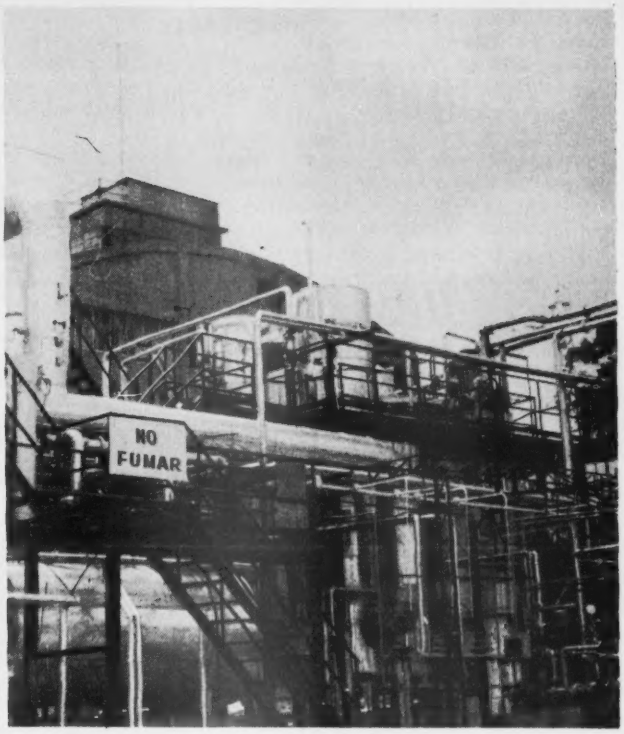
Uruguay's second resource is her agriculture – the mainstay of her economy. The country is self sufficient in essential foodstuffs and in 1977 agriculture and livestock accounted for almost 15 per cent of gdp.

But Uruguay's agricultural potential has yet to be realised. For years while Uruguay suffered balance of payments problems and slow growth the policymakers sought refuge behind price controls, import substitution industries and high tariffs. Until 1975 the three traditional exports, beef, wool and hides, accounted for over 50 per cent of exports. The farmer never had much incentive to improve his yields. Until recently taxes from the agricultural sector were high enough to support Uruguay's welfare state and provide the subsidies for local industries, while the farmer received only 40 per cent of the high-street price for his meat. On the land meanwhile he was using only one-sixteenth of the fertiliser used in New Zealand, a country comparable to Uruguay economically and geographically.

With the change in government in 1974 came a new economic direction. Inspired by the so-called 'Chicago school' of economic thinking, the authorities have set about making the most of Uruguay's natural resources: their objectives are to reduce the public sector deficit by switching management of important sectors of the economy to the private sector and to dismantle the protective barriers – price controls, subsidies and import duties – and so give rein to competitive market forces.

Under a new agricultural policy, announced on 3 August last year, the government will withdraw from the agricultural sector. Internal controls on the movement and price of beef have been removed, and the prices of other agricultural products will be freed after the present harvest. Controls on the import of agricultural products will be removed, improved incentives will be available to pro-





Duperial (ICI) – new phthalic anhydride plant at Suarez, 20 miles from Montevideo.

ducers, but subsidies for agricultural production will be kept to a minimum. Local assembly of tractors will be continued while duties on higher horse-power assembled tractors are to go down to 10 per cent. At the same time there will be incentives to improve land and achieve better yields.

In this sort of climate, British manufacturers of agricultural machinery, refrigeration and irrigation equipment could do worse than advertise their wares at this year's (August) Prado show. There could be opportunities too for livestock producers who could benefit from a debate among cattle breeders which threatens to topple Texan and Albertan breeds as the main source of fresh blood for Uruguayan cattle.

There are also plans for the development of new agro-industries – for the production of, for example, dried vegetables, tinned fruit, processed meat, fruit juices and preserves. In the more established meat-processing field the process of return to the private sector is at an advanced state of planning. The call for bids from the private sector for the purchase of the Frigorífico Casa Blanca is expected in the near future and the Frigorífico Fray Bentos will also be sold. Both will need extensive modernisation and re-equipment. While bidding for the former is expected to be restricted to local co-operatives, there is a possibility that Fray Bentos may be open to foreign bidders.

Development of the fishing industry is another priority. The project is in the hands of the Instituto Nacional de Pesca, which envisages a catch of 200 000 tons of fish and a fleet of 70 trawlers by 1981. At the moment Uruguay has just 25 fishing boats, with a few more under construction in Argentina and Brazil, while facilities for fish processing are as yet virtually neglible. At La Paloma meanwhile, a Brazilian consortium has carried off the 6 million dollar contract for the planning and construction of a quay, plus repairs to the break water, but a second stage – constuction close to the port of a 'parque industrial', which will concentrate on processing anchovies – is under consideration.

Uruguay's third and final resource is its small but educated workforce. Education to university level is free and literacy, at 96 per cent, is as high as that in Britain. There are projects under consideration for the improvement and re-equipment of the University of the Republic in Montevideo and for the establishment of a national vocational training system. International finance will be available for both (see below). Surprisingly for a country so small, Uruguay claims the world's first welfare state, which dates back to the 1920s, and the population still has access to free medicine and unemployment insurance. Wealth is more evenly distributed here than in many other Latin American countries and living standards are comparatively high, despite inflation, which, at a level of 46 per cent in 1978, is generally regarded to be under control. Even so, the Minister of Economy and Finance announced at the end of 1978 that the reduction of the level of inflation would in future be

UK-Uruguay trade £ thousand

UK imports	1977	1978
Total	**15 965**	**24 256**
of which (main areas)		
Meat and meat preparations	479	869
Cereal and cereal preparations	1 891	6 027
Vegetables and fruit	231	79
Hides, skins and furskins, raw	390	98
Textile fibres and their wastes	11 628	13 776
Leather, leather manufacturers n.e.s.	377	275
Textile yarn, fabrics, made up articles	1 263	1 348
Machinery specialised for particular industries	—	501
Travel goods, handbags and similar containers	71	284
Footwear	165	601
UK exports		
Total	**20 202**	**17 448**
of which (main areas)		
Beverages	732	1 168
Organic chemicals	600	547
Artificial resins and plastic materials	574	959
Dyeing, tanning and colouring materials	325	494
Chemical materials and products n.e.s.	351	642
Iron and steel	442	333
Manufactures of metal n.e.s.	510	515
Power generating machinery and equipment	464	579
Machinery specialised for particular industries	2 868	3 268
General industrial machinery and equipment n.e.s.	1 466	608
Road vehicles (including air cushion vehicles)	6 842	4 474
Various	1 115	186

Source: Overseas Trade Statistics of the UK.

Uruguay: financing of forthcoming projects

Reconstruction and re-equipment of University of the Republic. Inter-American Development Bank (IADB) loan of $20-25 million under discussion; total project cost $30 million.

Vocational training. World Bank financing under discussion; total project cost $16 million.

Laguna Merin projects. As yet undecided; Brazilian financing or a loan from IADB or World Bank.

Electricity transmission and distribution. Discussions proceeding with both World Bank and IADB.

Montevideo water supply. IADB loan of $26 million approved; total project cost c. $40 million; invitations to selected consultants to bid for final studies and supervisory work have already been issued.

Montevideo sewage disposal. IADB loan of $25-30 million under negotiation.

Natural gas supplies. Loan granted by River Plate Basin Development Commission for feasibility study; World Bank loan under discussion for work.

Montevideo access and transit road system. IADB loan under negotiation; total cost of project $40 million.

Treinta y Tres cement plant. Private sector financing, 90 per cent Brazilian, 10 per cent Uruguayan envisaged.

British companies will be able to bid for all projects put out to international tender. Highway construction projects are not normally in this category, but they indicate sales opportunities to suppliers of road-making equipment.

his first priority, in place of the balance of payments, since the latter was no longer a serious problem.

Infrastructure

Apart from the opportunities which will arise from development of Uruguay's natural resources, it is clear that the biggest business will ensue from infrastructure projects in the public sector.

There is, for example, a major project planned at the Laguna Merin Basin in the north east which will include construction of two dams – Centurion, to be built partly for hydro-electricity, and Talavera, which will provide irrigation for cultivation of rice, fruit and vegetables around the lagoon. Foreign expertise will be required for the construction project certainly, but there might well be additional business to be had from the eventual industrial development of the area.

A country with no oil of its own, Uruguay was hit hard by the oil price rise in 1974 and is consequently staking much on two hydro-electric projects for her future energy needs.

The first, the Salto Grande hydro-electric scheme on the River Uruguay, is due to begin production of electricity during April and work has already started on a second project in the centre of Uruguay, on the River Negro at El Palmar.

Although construction contracts have been let for both projects – the first to an Italian-led consortium and the second to a Brazilian firm working with a local company – there will be considerable opportunities in the supply of equipment for transmission and distribution of electricity. Elsewhere in the energy field, the Uruguayan government is interested in the possibility of establishing a first nuclear reactor and has obtained the services of an adviser on the subject through the International Atomic Energy Organisation.

Once power from Salto Grande becomes available, Uruguay hopes to electrify its diesel railway system. In the meantime there are plans to extend the railway north into Tacuarembo province with 30 to 40 km of track, plus a new bridge for which tenders were issued in January.

In the utilities field, plans are under consideration for the expansion and improvement of Montevideo's water supply with a new 44 million dollar dam and pumping station, and there has been a feasibility study on the disposal of the city's sewage which envisages expenditure of 25 million dollars, 80 per cent of which would be financed by the Inter-American Development Bank (IADB).

International bids have recently been invited for modernisation of the telephone and telegraphic coastal service system by 1981. The work involves renewal of cables and the introduction of microwave equipment at a total estimated cost of 48 million dollars, 20 million dollars of which is to be provided by IADB.

Elsewhere, there are plans for a gas pipeline linked with the Argentine network to bring natural gas from Bolivia, a 6.2 million dollar road-improvement project between Montevideo and Punta del Este, new access and transit roads to end Routes 1 and 5 in Montevideo, and construction of a 400 000 tons-per-year cement plant near Treinta y Tres, north east of Montevideo. There might even be international tenders soon for exploitation of iron ore deposits discovered in the Va entines region; a government working group is currently studying test findings.

Bidding for all of these major projects, as for all government tenders in Uruguay, can only be undertaken by Uruguayan nationals. It is essential therefore that British companies seeking a foothold in the market should acquire local representation there. This could – and often does – take the form of an agent. Alternatively there are possibilities for joint-venture arrangements with local firms. Indeed, for many projects in the private sector, an injection of foreign capital can be a *sine qua non* for new projects and the expansion of existing facilities.

The embassy in Montevideo is ready and willing to advise businessmen on the best approach to the market and will arrange appointments if required. It makes sense, though, to give the post advance warning of your visit if possible to allow for preparation of the best possible programme and businessmen should in the first place contact the Department of Trade, Export House, 50 Ludgate Hill, London EC4M 7HU, or the nearest regional office of the Department of Industry.

So, if you're travelling in Brazil or Argentina, make a side trip to Montevideo – it's probably nearer than you think. The business may not be massive, but you may be surprised at the range of opportunities.

Uruguay's export-import trade 1976 and 1977

$ thousand

	1976				1977			
	Import	%	Export	%	Import	%	Export	%
Latin American Free Trade Association (Lafta)	209 932.0	35.0	125 663.0	23.4	227 953.3	34.1	148 365.5	24.8
Andean group	(39 632.6)	(6.6)	(28 575.9)	(5.3)	(33 394.4)	(5.0)	(13 077.2)	(2.2)
Caribbean Free Trade Association	1 832.4	0.3	2 339.7	0.4	1 937.5	0.3	1 461.3	0.2
Central American Market	44.5	—	65.5	—	42.1	—	119.4	—
Canada	8 056.1	1.4	3 802.1	0.7	9 815.8	1.5	3 575.7	0.6
United States	49 160.2	8.2	58 747.0	11.0	70 899.3	10.6	86 885.9	14.5
Rest of America	8 286.3	1.4	3 088.7	0.6	4 099.8	0.6	2 131.2	0.4
European Economic Community	96 139.9	16.1	188 848.0	35.2	140 293.3	21.0	188 428.0	31.5
European Free Trade Association [1]	18 664.6	3.1	21 550.1	4.0	18 467.1	2.7	30 055.5	5.0
Rest of western Europe [2]	8 612.3	1.4	42 924.3	8.0	8 321.2	1.2	28 491.1	4.8
East Europe	10 214.2	1.7	17 846.9	3.5	10 690.0	1.6	38 230.6	6.4
Middle East	118 806.3	19.8	38 607.7	7.2	87 425.4	13.1	48 028.4	8.0
Africa	48 451.6	8.1	1 470.8	2.3	60 886.0	9.1	10 586.2	1.8
Asia	19 040.6	3.2	19 841.0	3.7	27 794.2	4.2	11 917.3	2.0
Australia and New Zealand	1 678.1	0.3	186.9	—	146.6	—	220.3	—
Other countries	1.7	—	40.1	—	—	—	48.4	—
Adjustments	598 920.8	100.0	536 021.8	100.0	668 699.6	100.0	598 544.8	100.0
	−11 743.8		+10 454.2		+52 267.4		+8 978.2	
	587 177.0		546 746.0		720 967.0		607 523.0	

Source: Importacion Exportacion CENCI.
[1] Austria, Norway, Portugal, Sweden and Switzerland. [2] Finland, Gibraltar, Greece, Spain, Turkey and Yugoslavia.

Uruguay's exports January-June 1977 and 1978

$ thousand

	January-June 1977	%	January-June 1978	%
Lafta	66 938.3	22.5	79 525.5	25.1
Andean group	(7 708.3)	(2.6)	(5 683.6)	(1.8)
Caribbean Free Trade Association	433.2	0.1	1 770.5	0.6
Central American market	26.9	—	17.4	—
Canada	1 648.4	0.6	1 468.5	0.5
United States	35 003.5	11.8	48 538.0	15.3
Rest of America	1 816.4	0.6	67.7	—
European Economic Community	86 729.8	29.3	109 903.9	34.7
European Free Trade Association [1]	22 326.3	7.6	2 805.7	0.9
Rest of western Europe [2]	20 223.8	6.8	13 054.5	4.1
East Europe	23 636.5	8.0	22 903.6	7.2
Middle East	25 068.4	8.5	15 855.7	5.7
Africa	4 746.3	1.6	5 955.5	1.9
Asia	7 532.7	2.6	12 427.1	3.9
Australia and New Zealand	72.9	—	130.0	—
Other countries	48.4	—	159.0	0.1

Source: Importacion Exportacion CENCI.
[1] [2] See notes to Uruguay's export-import table.

Uruguay's trade with EEC

$ thousand

	1976				1977			
	Imports	%	Exports	%	Imports	%	Exports	%
West Germany	40 854.8	6.8	66 935.9	12.5	50 555.3	7.6	71 389.0	11.9
Belgium-Luxemburg	5 388.5	0.9	8 723.2	1.6	4 648.4	0.7	10 460.8	1.8
Denmark	805.2	0.1	1 109.0	0.2	1 885.0	0.3	945.0	0.2
France	9 650.1	1.6	20 588.0	3.9	18 924.2	2.8	16 608.8	2.8
Ireland (Eire)	580.8	0.1	198.8	—	609.7	0.1	213.8	—
Italy	11 418.2	1.9	29 538.8	5.5	20 443.5	3.1	19 768.0	3.3
Netherlands	6 447.4	1.1	40 803.3	7.6	8 867.4	1.3	41 410.9	6.9
United Kingdom	20 994.9	3.6	20 951.0	3.9	34 359.8	5.1	27 431.7	4.6
Total EEC	96 139.9	16.1	188 848.0	35.2	140 293.3	21.0	188 428.0	31.5
Other European countries	37 491.1	6.2	82.321.3	15.5	37 478.3	5.6	96 777.2	16.2
Other continents	465 289.8	77.7	264 852.5	49.3	490 928.0	73.4	313 339.6	52.3
	598 920.8	100.0	536 021.8	100.0	668 699.6	100.0	598 544.8	100.0
Adjustments	−11 743.8		+10 454.2		+52 267.4		+8 978.2	
Total	587 177.0		546 476.0		720 967.0		607 523.0	

Source: Importacion Exportation CENCI.

STRATEGY NEWS

Trade and Industry monthly guide to developments in the Industrial Strategy

No 9 March 1979

Good design is good business

One of the recurring themes in sector working party (SWP) reports on the Industrial Strategy during the last three years has been the importance of product design for the competitiveness of UK goods, especially in the engineering sectors. This month's issue of 'Strategy News' explains how their work led to the Corfield report on product design and summarises its findings. We also look at the contributions from the Design Council and government (pages 2 and 3) and the activity of two SWPs in this field (page 4).

There is growing evidence, say the SWP reports, that the UK is being outstripped by competitors who have recognised the advantage of good product design. It is time, they say, for manufacturers to wake up to the fact that more effective effort in the field could contribute significantly to the success of their business. Poor design not only makes a product appear undesirable but wastes valuable labour and material. A well-designed product, on the other hand, should meet international market requirements, embody current technology, and should be economical to manufacture and reliable in service.

In the light of these views, at its 1977 meeting the National Economic Development Council invited Kenneth Corfield to prepare a report on UK product design. He was asked to identify key management factors in good design; to review the transfer of technology in the UK; to assess the extent to which factors leading to successful product design were constrained or inoperative in UK industry; and to make appropriate recommendations.

His report (the Corfield report) was presented to the NEDC meeting on 10 January, where it was generally welcomed by all the parties. It was agreed that his report should be published and that government, management and unions would consider how to implement the recommendations as swiftly as possible.

Kenneth Corfield: identifying key management factors.

The report was aimed almost wholly at managers who have total responsibility for the design of a product. The conclusions and recommendations fell into eight categories.

Responsibility for design

Product design and its management are not recognised in many firms as a key function, says the report. Decisions relating to product design must take into account marketing considerations, design for production, skills available and the cost at every stage of manufacture.

Mr Corfield recommended that a board member should be designated to take on the design function as his prime responsibility and to ensure that all other functions were fully integrated into the design decision.

Design review

Mr Corfield identified four key aspects of product design:

- ☐ initial specification
- ☐ cost effectiveness of the design proposal
- ☐ careful monitoring of each stage of product development
- ☐ adequate control and feedback of implications of design variation.

The study emphasises the importance of implementing the design review process at critical development phases to determine whether or not to proceed or abort. And points out that each design review should form part of the broader product planning approach which marshalls and integrates all the corporate functions to ensure success.

Design and investment

Mr Corfield believes that management should take into account design considerations when making investment decisions and that funds should be made available for computer-aided design.

Fundamental criteria for successful product specification should cover: performance, price, marketability, manufacturability, reliability, maintainability and delivery requirements. After-sales service is also a part of the product and consideration should be given to the trade off between reliability and use of maintenance at the specification stage. Another essential judgement, he says, should concern the anticipated product life, bearing in mind the changes likely to arise both from technological advances and from fashion.

He also provides a list of crucial questions which should be answered before product development proceeds.

Status of design and designers

The report stresses that design should be seen as a creative, exacting and responsible job and calls for the status of designers, particularly within the engineering profession, to be enhanced.

Mr Corfield recommends that management should upgrade the status of those concerned with design in their companies and take positive steps so that designers should have a worthwhile career structure.

Management and professional bodies should ensure the educational system is aware of their needs so that the right calibre of people can be trained as designers, and professional institutes should ensure more prominence is given to their members with design qualifications.

He also recommends that the Design Council should strengthen its efforts to improve the status of design and the understanding of design in industrial management.

Education and training

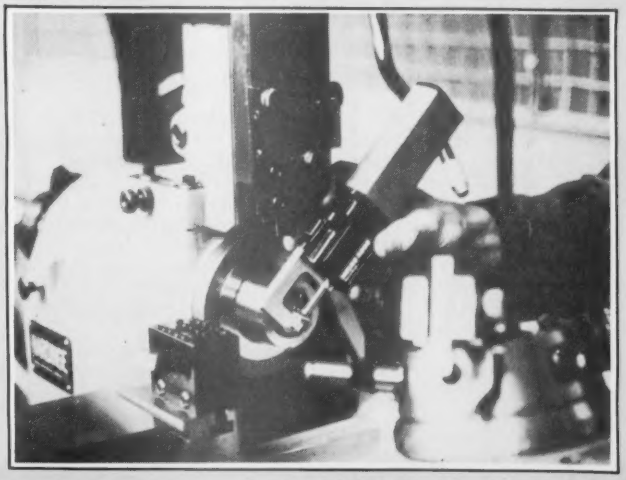
The Corfield report emphasises that designers should be aware of the importance of changing technology, modern production methods, and the financial and cost aspects of their work. It is essential, Mr Corfield says, for education and training to be suitably organised, and here the report notes that considerable progress has been made in establishing advanced courses in particular fields of design as recommended in the 1963 Fielden report on engineering design.

The study recommends that management and academic insti-

Design report available

Kenneth Corfield's report on product design will be published later this month. Copies will be available, price £4, from Nedo Books, 1 Steel House, 11 Tothill Street, London, SW1.

Corfield case study: the electronic micrometer Micro 2000 designed for Moore and Wright (a member of the James Neill Group) by Patcentre International Ltd.



Corfield case study: the Micro Cycle fold-up cycle, complete with carrying bag – designed for manufacturability.

tutions should closely collaborate on planning design courses and defining their requirements and that the Design Council, trade and professional bodies have a vital role to play in helping industry and colleges build up these links.

It says extensive use should be made of case studies on courses and that lecturers should gain industrial experience.

The Design Council should ensure its recommendations on design education contained in the Carter and Moulton reports are implemented with all speed.

The report recommends that all new academic courses in electrical and mechanical engineering should take account of design and says that within the next five years 80 per cent of all courses in any academic institution should be structured in this way.

It also says that industrial experience should be an essential requirement for academics seeking appointment to engineering faculties – they should aim to have a sabbatical in industry every five to 10 years. And every academic institution should have a quota of visiting industrial lecturers.

Technology transfer

The Corfield report recognises that ensuring technological knowledge is widely dispersed throughout industry is a complex process involving many research, professional and academic institutions, and a transfer of people.

He recommends that all possible steps should be taken to encourage mobility of labour between industry, government, research institutes and education establishments and says industry should be more aware, and ready to capitalise on, the applied research being undertaken in research institutions.

Professional institutions should foster more opportunities for maker-user dialogues because availability of materials and components which embody up-to-date technology is of major importance in developing successful design. If the user's needs can be made known to suppliers at an early design stage the suppliers can plan their investment and development accordingly, making available valuable information on product improvements, as well as information on reliability and servicing.

Mr Corfield also says that industry should make a greater effort to be aware of international developments on technological processes, and recommends that the government and Design Council should expand the Design Council's advisory service (see right).

Public sector purchasing

The report identifies the significant role of the public sector as a major customer for many industries and explains how the government can play an influential part in the design process through the various schemes for assistance it makes available to industry (see opposite page).

The Corfield report recommends that public authorities should develop procedures for reviewing all public sector purchases for design specification, content. and execution.

It says the government should encourage good design practices and the use of computer-aided design through its assistance schemes. Specifications should be functionally orientated and compatible with overseas requirements for similar products.

Role of standards

The Corfield report also discusses the influence of standards on good design, welcoming the Warner report on standards and specifications.

Design considerations should be taken fully into account in the standards-making process, it says. Standards should emphasise function and performance rather than specifying constructional detailing and when standards are drawn up export market considerations should be taken fully into account. Internationally accepted standards should be used wherever possible.

Good design in practice

The Corfield report provides five case studies which illustrate examples of successful product design and cover many of the principles explained in his report. The Corfield report demonstrates a clear connection between good design and higher productivity. Good design, it points out, increases the value added to the resources used in business on which wealth creation and jobs depend. And, because it improves the competitive stance of industry, it is vital in the work of the Industrial Strategy.

Emphasis on the product

Increased emphasis on product and product development constitutes Britain's principal hope for economic recovery, in the Design Council's view. Its director, Keith Grant, explains how the council can respond, and is responding, to the recommendations in the Corfield report.

It is now widely accepted that Britain's failure to retain its share in world markets is attributable in large measure to inadequate standards of quality and design. Speeches by the Prime Minister and the Chancellor of the Exchequer proclaim it, and an urgent concern for better, more marketable products pervades the Industrial Strategy.

In the Design Council's opinion, increased emphasis on product and product development constitutes Britain's principal hope for economic recovery. We therefore welcome the timely report and recommendations in Corfield's report.

Corfield is self-confessedly concerned mainly with ways in which industry should help itself, but nevertheless there are some clear recommendations to government and institutions – particularly the Design Council – and I believe the council can respond in a number of ways:

Design advice for industry

Our design advisory service is a rapidly expanding membership scheme, which aims mainly to assist companies to solve design problems and to encourage the use of design expertise not available in-house. Such expertise may reside in consultancies, government research establishments, research associations, universities, or in industry itself.

The council sees itself in a catalytic role, matchmaking between industry and designers. As the service is very much to do with the transfer of technology, an important aspect of its work is likely to be in developing new microprocessor applications. Set up three years ago to assist the engineering industries, the design advisory service is now penetrating the consumer goods industries and the distributive trades, so Corfield's recommendation that the service be expanded is entirely in line with our own thinking.

Design and industrial management

Corfield recommends that the Design Council should devote increased effort to improve the status of design and the understanding of design in industrial management. The point is well taken. Although it could be said that a large proportion of the council's effort since the war, through exhibitions, publications, award schemes, courses and conferences, has been directed at management, much still needs to be done. Corfield's contention that design is not regarded as a principal function within most companies cannot be disputed. The Design Council intends to redouble it efforts to assist management in both the understanding and management of design, linked as this is with a company's ability to innovate.

Keith Grant: ready to advise.

On top of our existing educational programme, we propose to publish case-studies of design projects which we have been involved with or which have received Design Council awards. We are also conducting an investigation in the near future into the curricula of business and management schools. It is our belief that these curricula fall short of equipping boardroom-members-of-the-future with the ability to handle product design with the same degree of familiarity and skill which is conventionally expected in matters such as production, marketing and finance.

Education

A mismatch does exist between the needs of industry and the various types of designer produced by our education system. Within education there has been much self-questioning and there are signs, for example, of a willingness to give more emphasis to design in the engineering schools. We should also welcome the involvement of the Technician Education Council (TEC) in the validation of design courses at technician level. But if the education system fails to give industry what it needs, industry must take part of the blame, as it has in

certain respects failed to define these needs.

In this field too the Design Council sees its role as a catalytic one since its activities place it in a uniquely central position between the teachers, the taught and the employers. The Carter and Moulton reports recently published by the council and mentioned in the Corfield report embody our strategy in further and higher education. Another policy document is now in preparation to deal with the equally (some would say more) difficult question of design in secondary education.

Standards

The recommendation that the Design Council, the British Standards Institution and other organisations might link arms to define standards, which go beyond constructional detailing and which embrace function and performance, commands our full support. The Design Council would be keen to take part in product approval and certification schemes, but only on the condition that they were requested by, and not imposed upon, industry. We would wholeheartedly support the notion that the task should be shouldered within the framework of existing institutions, rather than by some new, expensive bureaucratic creation.

The Design Council has already been involved experimentally with the heating, ventilating, air-conditioning and refrigeration equipment (HVACR) sector working party (see page 4), which sees advantage in an approvals scheme for that sector. And perhaps the best prospect for improved standards and certification lies in development sector by sector, in which the SWPs could play a vital part.

Collaboration

This thought prompts me to make one final observation, and that is on the subject of collaboration between public and private sectors in the national effort to generate new and better products. Under present circumstances it is difficult to see how industry can do without a degree of assistance from the state. It seems to me that the NEDC sector working parties have it within their grasp to help co-ordinate private and public endeavour in the best possible way, and the Design Council stands ready to advise any SWP which has the wish to upgrade design and quality in its sector of industry.

Strategy News and your firm

If you would like another copy of this month's 'Strategy News' or think that another member of your firm or organisation would like to see it, ring 01-215 5021. We will send you a free copy.

Government concern

INDUSTRIAL STRATEGY MAKE IT WORK

Government concern about good design dates back to the great exhibition of 1851 and is much older than the Department of Industry, which is closely concerned with the subject today. This article outlines DoI support and describes efforts to promote design as a comprehensive process in manufacturing industry.

In the immediate post-war period government support for design was available through the Council of Industrial Design. Then, when the Ministry of Technology investigated how design could be supported as a comprehensive subject in 1970, the council responded by extending into the field of engineering design. It changed its name to the Design Council, and was granted a royal charter in 1975. Today, apart from the grant-in-aid given to the Design Council, government support for design is administered by the Department of Industry.

Individual projects

In the first place DoI is concerned with design in the individual projects it supports through its many industry schemes, such as the selective investment scheme and some sectoral schemes. One of its more important grant schemes, introduced as a result of SWP recommendations, is the product and process development scheme which makes assistance available for, among other things, projects involving product development, including support from the design phase onwards, or a significant modification to an existing product. The scheme was introduced with a budget of £25 million and all applications are considered with reference to their industrial context and to the aims of the industrial Strategy.

NRDC help

At the same time the National Research Development Corporation sponsored by the department, also extends help to promote many inventions, and an adequate design element in any such project receives support like any other aspect.

Requirements boards

Support for innovation through the department's nine requirements boards which have strong industrial representation is also important. The requirements boards are working closely with a number of sector working parties on future work programmes and priorities for technical developments. They are also increasing their efforts to allocate more of their funds to development projects undertaken by firms. Also important is support for industrial technologies, such as corrosion prevention and terotechnology (the study of a project's life-cycle requirements); these help the designer to take account of factors that may have been overlooked in the past. DoI also has five industrially orientated industrial research establishments which can provide assistance with the design and development of new products. Details about the work of some of the REs has already been published in *Strategy News*.

Comprehensive process

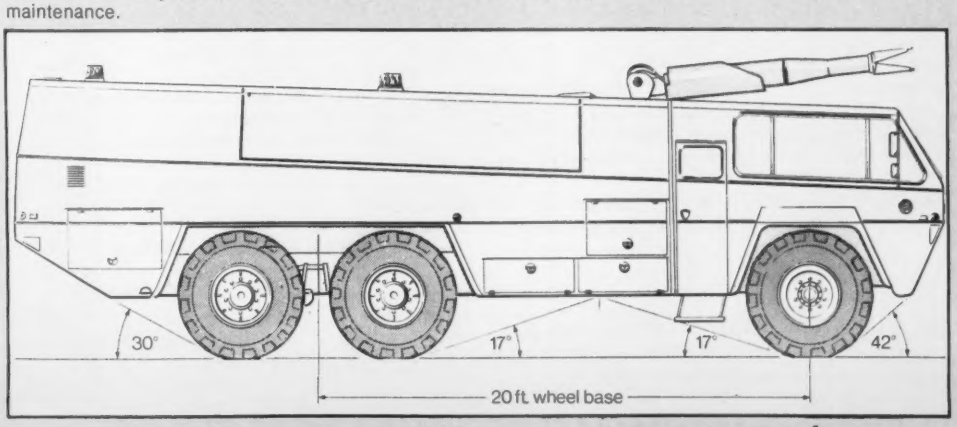
But the recent upsurge of interest in design is much more concerned with design as a comprehensive process, which shows up in products as attractiveness and fitness for purpose. There are of course differences between products, but there are some general points of importance too. The department has been considering what further efforts it ought to be making itself.

Discussions over the past few months have produced several ideas that are being investigated in greater depth, many of which require close collaboration with the Design Council. These include collaboration with SWPs on testing and reviewing the design of products, domestic and foreign, encouragement to manufacturers for promoting education in this field, and further effort on promoting the understanding of the impact of microprocessors, plus additional support for computer-aided design (CAD). Computer aids have emerged as a practical way of helping manufacturing industry to make the best use of scarce engineering skills. The Corfield report strongly urges management to make full use of CAD and the Computer Aided Design Centre at Cambridge has years of experience in helping UK industry to improve its design and production engineering (see the November issue of *Strategy News*).

The department agrees with the emphasis in the Corfield report, which addresses itself primarily to management. DoI's own efforts are likely to go further in the direction of urging management to give better and more consistent support to product design, and providing assistance for this purpose.

Some such assistance is already available in the manufacturing advisory service which provides advice to firms with between 100 and 1000 employees in the manufacturing and assembly sectors. The advice certainly includes aspects of design as well as stimulating the adoption of modern, well-proven technology and associated management practices, though in most cases the Design Council's design advisory service (see opposite page) would be the appropriate source of advice.

Corfield case study: Chubb Fire's Pathfinder airfield crash truck, designed for maximum reliability and minimum maintenance.



Action by SWPs

Good product design has emerged as an essential prerequisite of competitiveness in several SWP reports – and 19 SWPs are active in this field. Here we look at the efforts of the two SWPs to promote a greater awareness of the importance of design in their sectors.

HVACR: the productivity connection

A report prepared by a member of the textile machinery sector working party stimulated serious interest on the part of the heating, ventilating, air-conditioning and refrigeration equipment SWP in relationships between the design of products and their production needs. The textile machinery report analysed possible causes of labour productivity differences between comparable plants in Britain and overseas.

The study showed that the design of products and components in a way which would minimise production costs was one characteristic of high productivity in overseas plants.

Design and productivity

The HVACR SWP decided to investigate whether a correlation between design and high productivity was a noticeable difference between HVACR plants in Britain and overseas. As the first stage in its study, the SWP set out to discover whether there were any special features in the design of overseas products as far as their requirements for production methods and techniques were concerned.

Five SWP members provided examples of their own and of close competitors' products. These were examined by an independent team of professional engineers provided by the Design Council and an assessment made of the way in which their design allowed for the needs of production efficiency as well as for economic materials and component selection.

Products compared in these studies covered compressors, oil burners, axial flow fans, air-conditioning units and domestic central-heating boilers.

The studies showed that, although there was still room for improvement in production cost savings, generally overseas products were not technically superior to their UK counterparts.

Design Council report

The Design Council will now prepare a report evaluating for the sector the lessons to be learned on good design and the SWP will make sure that its conclusions are made known.

There could be a need, the study showed, to consider not only design for production, but also the interface with product performance, reliability, servicing, spares rationalisation, component standardisation and production runs. The next stage in the SWP's investigation will be to see how these aspects of design can be accommodated while the emphasis on design for production efficiency is retained and improved.

Checklist

broader consideration of how high-wage countries can continue to compete with the UK. It has already shown that there does not appear to be a sufficient difference in design to offset the cost of higher wages. So, while the design study continues, the SWP is preparing a checklist to be distributed among members. This will invite firms and their employees to consider by self-appraisal the appropriateness of batch sizes, ability to meet delivery dates, problems with production bottlenecks, and quality control and standards. Management, union and government representatives in the SWP are anxious to avoid any hint of interference in the way in which firms arrange to run their business and hope that the self-appraisal method will convey the right impression.

Stimulating growth

The SWP considers that both initiatives – the design studies and the checklist – are important elements in the overall effort to stimulate growth in the industry which in turn will accommodate high technology, high employment and high wages.

Knitting: the education problem

In its sector the knitting SWP soon found that it was necessary to improve the quality and quantity of design expertise and recommended that firms should be encouraged to employ designers, and that more designers should be encouraged to enter the industry.

The SWP concluded that there was insufficient contact between staff of design colleges and managers responsible for design in manufacturing industry; courses in colleges often seemed to bear little relation to the requirements of industry and college staff did not advise students sufficiently on the market for their skills.

It recommended that the Department of Education and Science together with local educational authorities should ensure that a much greater degree of liaison took place between colleges training designers and industry. Industrialists (management and trade unions) should be consulted about the curricula of design courses at colleges and teaching staff at design colleges should have some industrial experience; more courses should be of the sandwich type with a year's industrial experience.

In its latest report the SWP noted the increasing development of design courses to include practical industrial experience and some commercial content.

ITB guide

Meanwhile, following the SWP's recommendation, the Knitting Lace and Net Industry Training Board (ITB) was helping in the training of designers. It had appointed a working party which produced a training guide entitled 'Knitwear designers – their role and training'. Well received by industry, the guide defined in some detail the activities, knowledge and skills involved in the design job and offered guidance on in-company training of newly recruited designers to meet the distinctive needs of companies.

However, many employers had complained about the work required to develop, in newly recruited designers, an understanding of the technology and limitations of knitting and making-up machinery and of the need to produce commercially viable designs. In recent years, courses at Leicester and Trent Polytechnics had made an attempt to link conventional design education with knitting technology. But it appeared that the industry still continued to recruit mainly art-college graduates.

The training board decided that the most profitable strategy was likely to be:

- ☐ to attempt to correct inadequacies in designer education and training at the source
- ☐ to encourage firms to recruit designers from courses which were appropriate to the design function in knitted textile manufacture
- ☐ to encourage planned post-graduate training in companies for newly recruited designers.

Leicester's consultative committees

Following its third report in 1978 the SWP was advised by the Leicester Polytechnic that it had consultative committees for both textile technology courses and design courses with cross-representation to ensure a closer integration of technology and design. Membership included both sides of industry, relevant research organisations and academics.

To work effectively, the industrial members had to have authority to speak for the company and be able to take a strategic view of the needs of industry. A further cause for concern was finding sufficient sandwich places in industry to give students industrial experience of the most effective kind as part of their courses. Sandwich courses giving this experience were severely limited by this factor alone. The industry as a whole, as the SWP had found, was unaware of the training resources available and, compared with other industries, had not taken vigorous action to either ensure a flow of skilled design manpower or to use these resourses to improve staff designers' performance.

SWP action

The SWP secretary had a number of discussions with heads of design and fashion departments in colleges serving the knitting industry to clarify the problem.

One SWP member, Brian Wessely, served on a joint committee of the British Textile Confederation and the Design Council established to examine design and its teaching. The main recommendations of the BTC/Design Council working party report were for the establishment of design exhibitions and the creation of sandwich courses. It was recognised to be of prime importance that the industry and educational authorities should get closer together to ensure the supply of appropriately qualified designers. Sandwich courses, and subsidised studios were among the mechanisms suggested.

A design seminar held at Coventry had illustrated the fact that designers' instruction was essentially art instruction. Industry, it was recognised, had to get closer to the colleges to turn them into design rather than art colleges. This was the first seminar of its kind and was attended by managing directors and design directors from 40 major companies.

Another SWP member, Dan Styles, became chairman of the regional group for the Midlands, established by BTC to improve the relevance of design education to the needs of the industry. This group has arranged meetings between industrialists, trade unionists and educationalists to bridge the lack of liaison between teachers and users of design. The group's main conclusion, which echoed that of other bodies, was the need for more sandwich courses.

Overseas trade exhibitions

Canadian hardware market buoyant

From Kenneth Sayce, British consulate-general, Toronto

British exhibitors at Canada's annual hardware show found an underlying buoyancy to the market.

The nine British manufacturers (seven new to the market) that exhibited at the show, the seventy-fourth and held in Toronto from 11 to 14 February, had many high-quality inquiries. The companies were showing in a joint venture sponsored by the Birmingham Chamber of Industry and Commerce and the British Overseas Trade Board.

Exhibitors also found that their prices were generally on a par with or higher than local competition, reflecting the stronger pound and weaker Canadian dollar. But the British exhibitors were able to confirm that there was always a place for a product of individuality in design and popular appeal and visible quality benefits.

British representatives impressed visitors with their professionalism and enthusiasm. UK exhibitors were, in turn, encouraged by the Canadian experience.

More British companies could take part in this very important north American show which this year had 29 000 visitors not only from Canada and the United States but from France, Spain, Korea, Ireland and New Zealand.

Applications for space should be made soon as stands are at a premium. The 1980 Canadian hardware show, in Toronto from 10 to 13 February, promises to be a gala one as it will be the seventy-fifth anniversary.

Apollo Sprayers was one of the busiest stands at the Canadian hardware show. Mr L. W. Tyler, works production manager (right) demonstrates his company's products to an interested visitor.

Overseas trade export services

Ferodo's products move fast with Euro-shuttle

Ferodo, UK manufacturer of friction materials, has been getting slick service from Carryfast International's daily Euro-shuttle.

The main recipient of this service is Ferodo's agent in Holland P. G. Kuhne and Zoon which often needs items urgently and usually wants express deliveries twice a week.

On these occasions consignments, which can be anything from brake linings for cars to components for heavy winding gear on a North Sea oil rig, are consolidated and packed at Ferodo's Derbyshire headquarters and then taken to Carryfast International's Stockport depot.

If the consignments, usually weighing between 800 to 1000 kg, are delivered by 1100 hours to the Stockport depot, they are with the overseas distributor the following day.

Ferodo has experienced no problems with delivery. Even if a consignment is too late for a particular day's Euro-shuttle it will be accepted for the next day's vehicle, says Carryfast.

The Euro-shuttle is a guaranteed departure service from the UK which operates on a scheduled or daily basis. No delays to scheduled departures are tolerated. Such departures take place whether trailers are full or not. In the event of a 'departure' being over-subscribed, standby 'shuttles' are brought in as necessary. This instant despatch approach was formulated to ensure that exporters have a reliable service they can depend on. Priority is a key attribute of the service.

Further information: circle 345

Tri-Wall keeps out the cold on polar trips

Tri-Wall Containers is supplying the prefabricated Antarctic and Arctic base-camp huts and the packaging for the Transglobe expedition. The expedition is setting out from Greenwich in September for the first polar circumnavigation of the world.

Tri-Wall Containers is not only the official packaging supplier to the expedition, but is also a sponsor. Tri-Wall is the main contractor for the huts in association with Caledonian Mining Company, ICI, Bighead Bonding Fasteners and Liquid Plastics.

In trials which started in 1975, the 1977 British North Pole expedition set-up a base camp on North Ellesmere Island on the edge of the polar pack-ice. For almost six months, a radio hut constructed from Tri-Wall Pak material and similar to those to be used by the Transglobe team, stood up to winds of 80 mph and temperatures of −53°C.

The Transglobe huts are being constructed in three-foot sections and will be erected at the Antarctic and Arctic sites out of multiple units according to on-site requirements.

The expedition's packaging will be supplied by Tri-Wall Containers and its fabricators in the shape of 1500 transit boxes, 400 sledge boxes (for food packs), and hundreds of special-content containers, constructed from Tri-Wall Pak triple-fluted fibreboard.

Further information: circle 346

Mat opens Cherbourg office

Mat Transport has opened an office in Cherbourg, France. This new development will enable the company to provide full load and groupage services to all parts of France, using 20 ft and 30 ft side and end loading containers as well as 12 m tilt and flat trailers. Cherbourg has been identified as an important channel port with excellent links to Poole where the Mat group has had an office for some years.

Mat Transport will use the Poole-to-Cherbourg route to expand its operations from the west country, Wales, the Midlands and further afield to all parts of western and southern France as well as Italy, Spain and Portugal.

Further information: circle 347

Freepost reader service

For further information on items in this section, circle the corresponding number on the reader services page near the end of the magazine.

News of export services

If your company has recently introduced a new service for exporters – in, for example, the packing, forwarding, shipping, airfreighting, banking or translation fields – we would be glad to have details, plus a good black and white photograph where appropriate.

Items for inclusion in this feature should be addressed to the Editor, Trade and Industry, Eighth Floor, 1 Victoria Street, London SW1.

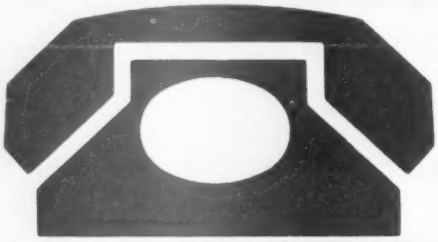
Advertisers who wish to be associated with this feature should contact Dudley Masters on 01-242 9478.

OTAR: help for exporters

Overseas Tariffs and Regulations Section (OTAR), Export Services and Promotions Division, Department of Trade, Export House, 50 Ludgate Hill, London EC4M 7HU (tel. 01-248 5757) can give you directly, or through your regional office, up-to-date information on the tariffs and customs regulations of overseas countries, import licensing regulations and restrictions including import quotas; certificate of origin; consular invoices and fees; labelling and marking requirements; regulations on foodstuffs, drugs and pharmaceuticals, agency legislation; setting up of a subsidiary company; and the import of samples. It also provides information, in collaboration with the Ministry of Agriculture, Fisheries and Food, on health regulations for livestocks meat, animal products and plants and seeds. In short, OTAR can help on almost all legislation which affects the entry of British goods into overseas countries.

Inquiries which concern the countries of more than one sub-section (excluding inquiries involving only EEC countries) should be made to OTAR's co-ordination sub-section on 01-248 5757 extension 452 or 454.

For information on specific countries, phone the number and extension given below



01-248 5757

extension

Sub-section A
1 Co-ordination of EEC regulations, requirements and common customs tariff (CCT), Denmark, France incl. overseas territories, Greece, Turkey, Cyprus

408 Denmark (incl. Faroe Islands and Greenland). EEC legislation on tariff and non-tariff barriers relative to community trade
423 France and French overseas departments, French overseas territories, Comoros
439 Greece (incl. Dodecanese Islands), Turkey, Cyprus

2 Benelux, Dutch overseas territories, Irish Republic, Italy, Federal Republic of Germany

288 Belgium, Luxembourg, Netherlands, Netherlands Antilles, Aruba, Bonaire, Curacao, St Eustatius, St Martin (Dutch), Saba, Suriname
466 Italy, Irish Republic
467 Federal Republic of Germany

Sub-section B
Efta countries, Spain, Gibraltar, Malta, Israel, Macao

458 Israel, Norway, Gibraltar, Malta
459 Austria, Sweden, Switzerland
460 Portugal, Finland, Iceland, Macao
461 Spain, Canary Islands, Andorra

Sub-section C
1 North America, Bahamas, Bermuda, West Indies

455 Canada
456 USA (incl. Alaska, Caroline Islands, Guam, Hawaii, Mariana Islands, Marshall Islands, Panama Canal Zone, Puerto Rico, Samoa (US), Virgin Islands (US), Wake Island)
7312 Anguilla, Antigua, Bahamas, Barbados, Belize, Bermuda, British Virgin Islands, Cayman Islands, Dominica, Grenada, Guyana, Jamaica, Montserrat, St Kitts/Nevis, St Lucia, St Vincent, Trinidad and Tobago, Turks and Caicos Islands

2 South and central America

474 Argentina, British Antarctic Territories and Antarctica, Cuba, Dominican Republic, Falkland Islands, Haiti, Paraguay, Uruguay, Bolivia, Chile, Colombia, Ecuador, Peru, Venezuela
476 Brazil, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama

Sub-section D
Africa

462 Algeria, Ceuta and Melilla, Egypt, Equatorial Guinea, Libya, Morocco, Sudan, Tunisia, Western Sahara
471 Angola, Cape Verde, Guinea-Bissau, Jibuti (Djibouti), Malawi, Mauritius, Mozambique, Rwanda, St Helena and Tristan da Cunha and Ascension Islands, Sao Tome/Principe, Seychelles, Somalia, South Africa (with Botswana, Lesotho, SW Africa/Namibia and Swaziland), Zambia, British Indian Ocean Territory
472 Benin, Burundi, Cameroon, Central African Empire, Chad, Congo (Brazzaville), Ethiopia, Gabon, Ghana, Guinea, Ivory Coast, Kenya, Madagascar, Mali, Mauritania, Niger, Senegal, Tanzania, Togo, Uganda, Upper Volta, Zaire
473 The Gambia, Liberia, Nigeria, Rhodesia, Sierra Leone

Sub-section E
Australasia and south-east Asia, eastern bloc, China, Mongolia, Yugoslavia

401 New Zealand, Singapore, Thailand, W. Samoa, Chatham Islands, Cook Islands, Niue Islands, Tokelau Islands, Philippines
468 Australia, Solomon Islands, Cocos (Keeling) Islands, Christmas Island (Indian Ocean), Nauru, New Hebrides, Papua New Guinea, Albania, Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland, Romania, USSR, China, Mongolia, Yugoslavia
469 Brunei, Fiji, Hong Kong, Indonesia, Malaysia, Tonga, Gilbert Islands (incl. Ocean Island, Phoenix and Northern Line Islands), Tuvalu, Norfolk Island, Pitcairn Island

Sub-section F
Middle East (part) and Asia (part)

420 Afghanistan, Burma, India, Pakistan, Japan, Korea Democratic Peoples Republic, Korea Republic of, Taiwan, Yemen Arab Republic, Yemen Peoples Democratic Republic
475 Iraq, Kampuchea (formerly Cambodia), Kuwait, Laos, Lebanon, Vietnam Socialist Republic of, Bahrain, Iran, Oman, Qatar, Syria, United Arab Emirates
7062 Bangladesh, Jordan, Maldives, Nepal, Saudi Arabia, Sri Lanka

Overseas trade country data

Australia

Ship repair. A notice in *Trade and Industry*, 3 November 1978, reported that the Industries Assistance Commission had released a draft of its report into the question whether assistance should be given to ship repair activity in Australia.

The government has considered the report and has accepted the recommendations that no change be made in the assistance at present provided.

Inquiries: CRE 01-215 5319.

Ref: CRE 1537/76.

Luggage. A notice in *Trade and Industry*, 25 August 1978, reported the date of the public hearing into the question of the long-term assistance needs of the local industry producing travel goods, brief cases, toilet cases and similar goods.

The Industries Assistance Commission has now released a draft of its report to give those interested an opportunity to examine and comment on it before recommendations are submitted to government.

To receive submissions on the draft the commission will hold a further public hearing at 10.00 hrs on 15 March in the Public Inquiry Room, Industries Assistance Commission, 16th Floor, 59 Goulburn Street, Sydney, NSW.

A copy of the draft report is available on loan from Department of Trade, 1 Victoria Street, London SW1H 0ET.

Inquiries: CRE 01-215 5319.

Ref: CRE 255/78.

Umbrellas, sunshades, etc. Following a report by the Industries Assistance Commission, reported in *Trade and Industry*, 29 September 1978, the Australian government has announced that the import duty for umbrellas, sunshades and parts therefor (other than covers, cases and trimmings) (tariff heading 66.01) was raised to 30 per cent from 16 February.

Inquiries: OTAR 01-248 5757 ext. 468/469/401.

Motor vehicle components. The Australian Department of Business and Consumer Affairs has decided to redraft the consolidated by-law references in relation to the concessional entry into Australia of original equipment and replacement components for commercial vehicles.

In its announcement the department stated that:

> Some such components will no longer be eligible for by-law (concessional) admission because of the reasonable availability locally of suitable equivalents. A small number of components will continue to be eligible for by-law admission but such admissions will be made on an ad hoc basis.

Copies of the redrafted by-law reference may be obtained from The Chief Inspector, By-law Department, Department of Business and Consumer Affairs, Edmund Barton Building, Barton, Canberra, ACT 2601.

Inquiries: CRE 01-215 5319.

Ref: CRE 44309.

Brazil

Fiscal measures. The National Monetary Council of Brazil passed a resolution on 24 January on the following new measures.

1 Elimination of the 100 per cent import deposit by June 1983 in reductions of 10 per cent each every six months.

2 Elimination of the export incentive IPI credit scheme by the same date, also by staged reductions every three months.

3 Annual additional devaluation of the cruzeiro against the US dollar by 4.5 per cent.

Inquiries CRE 01-215 5293.

Israel

Pens and pen refills. The Israeli authorities have issued regulations on marking and labelling pens and pen refills.

These regulations will come into force from 18 March, and copies are available from OTAR 01-248 5757 ext. 458/461.

Lebanon

Pepper. The Lebanese *Official Gazette*, 2, 11 January, published details of amendment 355 which increased the specific rate of duty on all kinds of pepper. See the table on page 502.

Further information

In many cases further information on the notices published on these pages is available to British exporters from the Department of Trade. The main branches concerned are: Commercial Relations and Exports (CRE) Divisions, 1 Victoria Street, London SW1H 0ET (tel. direct dialling); and Overseas Tariffs and Regulations Section (OTAR), Export Data Branch, Export Services and Promotions Division, Export House, 50 Ludgate Hill, London EC4M 7HU, tel. 01-248 5757. In each case, the relevant information source is indicated at the end of the notice by its initials (OTAR or CRE) and, in the case of OTAR, the telephone extension.

Rolling along in Dubai

An Avelling Barford VXC 011 vibratory road roller at work outside Sheik Rashid's new summer palace at Dubai, United Arab Emirates. Machines of this type have recently been exported to customers in the Middle East, Far East and south America.

CRE tel. Direct dialling
OTAR tel. 01-248 5757
Extensions to **OTAR** numbers are given at the end of each notice

Heading/Description	Basis for collection	Normal tariff
09.04		
Pepper of the Piper; pimento of the genus *Capsicum* or the genus *Pimenta*:		
12 a Pepper the duty not to be less than	Kg net	150 Piastres
	Value	18%
22 b Other	Value	10%

No further details are available.

Inquiries: OTAR 01-248 5757 ext 475/7062.

Philippines

Energy development plan. A copy of the Philippines' 10-year energy development plan has been received in Export Services Division. It has been produced by the Philippines' Ministry of Energy and outlines the goals and the physical and financial requirements of the energy development programme for the next 10 years.

The plan is available for reference in the Statistics and Market Intelligence Library, Room D16, Export House, 50 Ludgate Hill, London EC4M 7HU, tel. 01-248 5757 ext. 368/369.

Two copies only are available for loan. Applications will be dealt with in order of receipt.

Senegal

Import control. To protect local industry Senegal's Minister of Finance and Economic Affairs had decreed that, from 16 January, prior authorisation must be obtained from him by importers wishing to import goods under the following customs tariff numbers:

8514: low-frequency electric amplifiers of a value of CFA francs 40 000 or less;
8515: television sets; radio sets of a value of CFA francs 20 000 or less; radios with recording units of a value of CFA francs 30 000 or less;
8522: electrical appliances and apparatus not falling under any other heading in chapter 85 (including the above items);
9211: record players i.e. turntables with low-frequency electric amplifiers of a value of CFA francs 25 000 or less; sound recording and reproducing devices of a value of CFA francs 20 000 or less.

Inquiries: OTAR 01-248 5757 ext. 472.

Sierra Leone

Import licences. Sierra Leone's government notice 1153 – general notice to importers – states that applications for specific and open general licences for 1979 should have reached the Ministry of Trade and Industry, Freetown, before 15 February 1979.

The following goods may be imported under open general licence by special arrangement with the Bank of Sierra Leone:

Baby chickens, petroleum oils, crude, printing ink, newsprint, raw and packing materials for industries, goods imported under a re-importation certificate, fertilisers, education materials

All other goods require a specific import licence.

Inquiries: OTAR 01-248 5757 ext. 473.

Sweden

Petrol and fuel oils. The price freeze for petrol and fuel oils introduced in Sweden on 10 November 1978 has been replaced by a maximum price system. The prices stipulated for various grades are as follows:

Product	Öre per litre
Petrol 93/94 octane	207
Petrol 97/98 octane	211
Petrol 99/100 octane	213
Diesel	80
	Kronor per m³
Domestic heating oil 1	710
Domestic heating oil 2	700
Light fuel oil	
a normal sulphur content	584
b low sulphur content	608
Heavy fuel oil (650)	
a normal sulphur content	552
b low sulphur content	588
Heavy fuel oil (1500 and above)	
a normal sulphur content	527
b low sulphur content	557

An additional 'district' charge may be added to the fuel oil prices. This varies between different districts (in Stockholm it is 24 kronor m³). Petrol also has an additional 'zone' charge, which varies between 0 and 2 öre per litre.

Inquiries: OTAR 01-248 5757 ext. 459.

Tanzania

Sales tax amendments. Tanzanian government notice 160 of 17 November 1978 amends the first schedule of the Sales Tax Act 1976 from 16 November. Goods classified under the following customs tariff numbers are affected:

22.01, 22.02, 22.03, 22.09, 24.02, 50.09/10, 51.04, 52.02, 53.11/13, 54.05, 55.07/09, 56.07, 60.01, 60.06, 62.02.

Inquiries: OTAR 01-248 5757 ext. 472.

Thailand

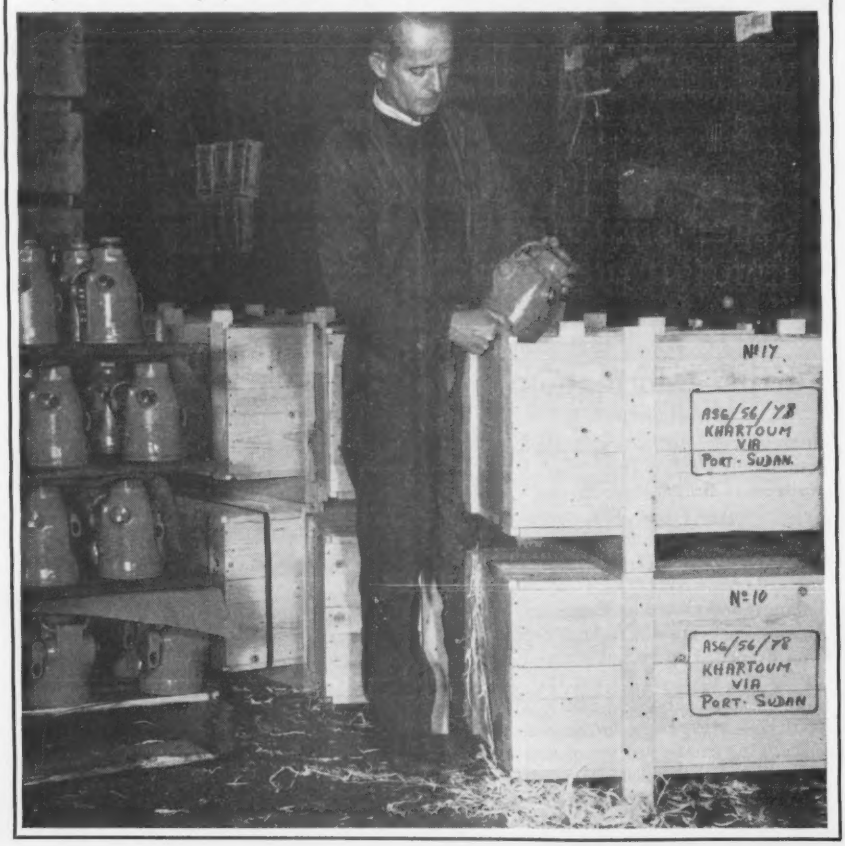
Benzine, kerosene and diesel oil. The Thai government has issued a royal proclamation on Customs Tariff (37) B.E. 2522, which came into effect on 7 February whereby heading 27.10 a, b and c of the import tariff has been amended to read as follows:

Item/Description	Specific duty Unit	Rate per unit (Baht)
27.10		
a Benzine and similar oils for engine	Litre	2.02
b Kerosene and similar oils for lighting	Litre	0.15
c Diesel and similar oils for engine	Litre	0.15

Inquiries: OTAR 01-248 5757 ext. 401/468/469.

Jacks for the Sudan

Packing Mastiff hydraulic jacks at the Braintree works of Lake and Elliott, Jacks and Equipment Ltd. The 'M' series jacks which range in capacity from 5-35 tons are part of an order for the Sudan. The contract, worth £150,000, is the latest of many such contracts resulting from the jacks' satisfactory operation in the local climate and environmental conditions.



Statistics

The economy: selected indicators [2]

Series are seasonally adjusted except where shown otherwise

	Gross domestic product (average estimate)	Consumers' expenditure	Fixed capital expenditure			Changes in stocks				Balance of payments		
				of which			of which					
			Total	Manufacturing industry	Distributive and service industries excl. shipping	Total	Manufacturing industry	Wholesalers'	Retailers'	Current balance	Visible balance	Invisible balance
	at 1975 prices		at 1975 prices			at 1975 prices				at current prices		
Base of index Series in Stock level at end-1977	1975	£ million	£ million			34,469	19,995	£ million 4,540	3,181	£ million		
1973	103.4	65 497	21 609	3 504	4 674	2 983	1 336	432	624	−999	−2 383	1 384
1974	101.5	64 070	21 164	3 822	4 605	1 462	1 288	361	−180	−3 591	−5 235	1 644
1975	100.0	63 192	20 817	3 522	3 841	−1 925	−1 221	−249	−100	−1 855	−3 236	1 381
1976	102.9	63 320	20 489	3 345	3 926	261	316	131	13	−1 149	−3 601	2 452
1977	104.9	62 732	19 738	3 573	4 325	1 051	442	266	29	371	−1 744	2 115
1978		66 261		3 833	4 671		544	17	333	84 p	−1 129	1 213 p
1976 2nd qtr	102.7	15 785	5 137	828	972	−17	−29	−10	−67	−315	−949	634
3rd qtr	103.3	15 884	5 168	849	1 005	189	99	81	46	−421	−1 136	715
4th qtr	104.0	15 927	4 997	856	1 014	214	260	17	27	−334	−966	632
1977 1st qtr	103.8	15 619	4 794	851	1 030	442	235	82	117	−453	−946	493
2nd qtr	104.8	15 495	5 025	879	1 044	354	97	179	4	−297	−779	482
3rd qtr	105.0	15 777	4 965	910	1 103	6	−6	−80	−59	541	−3	544
4th qtr	105.9	15 841	4 954	932	1 149	249	116	85	−33	580	−16	596
1978 1st qtr	106.1	16 311	5 030	920	1 169	460	208	81	62	−361	−590	229
2nd qtr	108.0	16 370	5 056	962	1 180	432	272	−62	128	135	−173	308
3rd qtr	108.9	16 810	*	981	1 168	*	175	45	54	−49	−365	316
4th qtr		16 704 pe		968	1 153		60	−47	89	359 p	−1	360 p
% change last 2 qtrs on prev. 2 qtrs.	+2.3	+2.5	+1.0	+3.5	−1.2							
on a year earlier	+3.4	+6.0	+1.0	+5.8	+3.1							

	Industrial production		Personal expenditure		Prices and earnings					Labour (UK)				Visible trade (volume)	
	Total all industries	Total manufacturing industries	Retail sales	Cars: new registrations	Retail prices		Wholesale prices: all manufacturing industry		Average gross earnings of all employees (GB, all industries and services covered)	Unemployed excluding school leavers and adult students		Unfilled vacancies for adults		Export	Import
				monthly averages		% increase on a year earlier	basic materials and fuel used	manufactured products: home sales		mid-month count	% of total employees	mid-month count		On a balance of payment basis	
	at 1975 prices		at 1971 prices		(not seasonally adjusted)				(old series)					at 1975 prices	
Base of index £m in base year Series in	1975	1975	1971 16,296	thousands	Jan. 1974		1975	1975	Jan. 1970	thousands		thousands		1975 19,463	1975 22,699
1973	109.5	108.4	110.3	137.1	93.5	9.1	58.8	66.7	152.1	611.0	2.6	307.0		97.7	108.8
1974	105.1	106.5	109.0	102.8	108.5	16.0	86.8	81.8	179.1	599.7[1]	2.6[1]	302.7[1]		104.2	109.7
1975	100.0	100.0	106.7	97.2	134.8	24.2	100.0	100.0	226.6	929.0	3.9	150.0[1]		100.0	100.0
1976	102.0	101.4	106.5	104.7	157.1	16.5	127.0	117.3	261.9	1 269.8[1]	5.4[1]	120.4[1]		109.7	105.6
1977	105.8	102.8	103.6	107.1	182.0	15.8	145.6	140.5	288.5	1 378.1	5.8	155.6[1]		118.9	107.3
1978	109.7	103.6	109.2	130.1	197.1	8.3	144.6 p	153.3 p	330.2 p	1 375.6	5.8	210.3		122.9	112.8
1977 1st qtr	105.5	103.8	103.3	104	174.1	16.5	144.8	133.0	280.0	1 329.5	5.6	..		115.9	108.9
2nd qtr	105.6	102.4	102.4	103	181.9	17.4	148.8	139.6	285.3	1 340.6	5.6	157.7		117.7	110.7
3rd qtr	106.2	103.0	104.2	112	184.7	16.5	146.5	143.8	288.3	1 414.6	5.9	151.9		124.6	107.3
4th qtr	105.8	101.9	104.7	110	187.4	13.1	142.2	145.8	300.4	1 427.8	6.0	160.1		117.3	102.4
1978 1st qtr	106.9	102.1	106.4	131	190.6	9.5	140.2	149.2	310.8	1 409.4	5.9	187.7		119.6	113.8
2nd qtr	110.9	104.7	107.9	132	195.8	7.7	146.3	151.8	329.0	1 372.7	5.7	210.3		122.2	110.0
3rd qtr	111.2	104.9	110.7	135	199.2	7.8	144.9	154.8	334.6	1 380.5	5.8	213.0		124.9	114.4
4th qtr	109.9	102.7	111.7	123	202.6	8.1	147.1	157.3	346.6 p	1 339.7	5.6	230.3		125.1	112.8
1978 Jan	106.7	102.1	105.3	127	189.5	9.9	139.4	148.3	306.3	1 419.2	5.9	180.3		111.0	113.1
Feb	107.3	102.0	106.7	122	190.6	9.5	139.1	149.2	311.2	1 409.0	5.9	187.0		127.3	111.8
Mar	106.7	102.3	107.2	145	191.8	9.1	142.0	150.0	314.8	1 400.0	5.9	195.8		120.4	116.6
Apr	111.2	105.2	106.9	134	194.6	7.9	145.1	150.9	325.7	1 387.1	5.8	203.7		124.3	105.1
May	110.1	103.4	108.2	126	195.7	7.7	146.8	151.9	327.2	1 366.4	5.7	209.9		120.5	113.6
Jun	111.4	105.4	108.6	135	197.2	7.4	147.0	152.7	334.0	1 364.7	5.7	217.4		121.9	111.4
Jul	111.4	105.0	111.0	109	198.1	7.8	145.8	153.8	332.7	1 371.4	5.7	211.0		125.7	112.2
Aug	111.7	105.5	111.7	148	199.4	8.0	144.2	154.8	333.2	1 392.1	5.8	209.3		124.5	111.6
Sep	110.5	104.2	109.6	146	200.2	7.8	144.8	155.7	338.0	1 378.3	5.8	218.7		124.4	119.5
Oct	108.9	102.1	110.2	134	201.1	7.8	145.7	156.6	344.8	1 359.6	5.7	228.4		125.9	111.3
Nov	109.6	102.5	110.5	119	202.5	8.1	147.3	157.1	343.5	1 338.8	5.6	231.3		122.6	114.1
Dec	111.3 p	103.6 p	113.8	115	204.2	8.4	148.3	158.3	351.4 p	1 320.7	5.5	231.2		126.7	113.0
1979 Jan			109.6	121	207.2	9.3	150.4 p	159.8 p		1 339.1	5.6	235.9		113.1 p	107.3 p
Feb							151.1 p	161.5 p		1 362.6	5.7	230.9			
% change latest 3 months															
on prev. 3 months	−1.2	−2.1	+1.0	−17.1	+2.2		+2.7	+2.2	+3.6	−1.3		+2.9		−3½	−2½
on a year earlier	+3.9	+0.8	+5.8	+4.7	+8.6		+7.2	+8.1	+15.4	−5.4		+31.1		+5	+5½

p Provisional e Estimate pe 2nd preliminary estimate [1] Average of available months [2] Including figures published by 6 March 1979 * Figures due to be revised

Inquiries: 01-215 3453

Retail sales in January

Volume

The final seasonally adjusted index of the volume of retail sales in January is 109.6 (1971 = 100), virtually the same as the provisional estimate of 109½ (announced on February 12).

The estimate confirms a fall in trade of nearly 4 per cent compared with December to a level below that of the second half of last year. A substantial increase in food shop sales was more than offset by a sharp fall in sales of non-food shops.

Shopping in January appears to have been concentrated in food shops, at the expense of non-food shops, probably because of the effects of the lorry drivers' dispute. Sales in non-food shops also appear to have been depressed by the abnormally bad weather during the month.

In the three months November to January the volume of sales was 1 per cent higher than in the previous three months.

The volume of sales by food shops in the three months November to January was 3 per cent higher than in the previous three months. Sales by clothing and footwear and durable goods shops were both little changed, while sales by other non-food shops, which include department stores and mail-order businesses, fell by 1 per cent.

Value

Based on non-seasonally adjusted data, the value of total retail sales in January was 13 per cent higher than in January 1978.

Notes

The indices for all shops, food shops, and total non-food shops are shown to the first decimal place to help interpretation, but should not be regarded as necessarily accurate to the final digit. The best indication of the recent trend is normally obtained by comparing the average index for the latest three months with the average for the immediately preceding three months, but month-to-month fluctuations may sometimes make it preferable to average two months or four months.

When using the volume figures, it should be borne in mind that, when price increases are large, the various problems associated with revaluation of the value series to constant prices become more acute. Thus, the relative accuracy with which volume changes have been measured is likely to have been reduced in recent periods.

The monthly periods consist of four weeks except those marked ' which are of five weeks. The January 1979 sales period was the four weeks from 31 December 1978 to 27 January 1979. The corresponding period in 1978 was the four weeks from 1 January 1978 to 28 January 1978.

The value estimates are compiled inclusive of VAT, and will, therefore, reflect changes in the rates of VAT. The volume estimates, however, are not affected by these changes since the retail price indices used to 'deflate' the value data are themselves inclusive of VAT.

Within the total, sales are analysed by 'kinds of business'; ie the statistics are of sales by particular kinds of shop rather than of sales of particular commodities. For example, while sales by shops classified as food shops are mainly of food, many of them also sell other goods. Similarly, some food is sold by shops classified to other kinds of business.

The seasonally adjusted series include, where appropriate, adjustments for the timing of holidays and adjustments to make allowance for the inclusion of an extra week in the January 1975 trading period. No adjustments are made to the non-seasonally adjusted data.

The article giving the provisional estimate of the seasonally adjusted index of the volume of retail sales for February and the increase in value of sales compared with a year earlier are due to be published later this month.

Inquiries: Department of Trade, Economics and Statistics Division 6c, Room 351, Sanctuary Buildings, 20 Great Smith Street, London SW1P 3DB, tel. 01-215 3705.

Table 1 Volume of retail sales seasonally adjusted

Index numbers of sales per week (average 1971 prices) 1971 = 100

(Sales in 1971 – £ million Final estimates)	All kinds of business (16 296)	Food shops (6 866)	Non-food shops Total (9 430)	Clothing and footwear shops (2 436)	Durable goods shops (1 897)	Other non-food shops [2] (5 097)
1971	100.0	100.0	100.0	100	100	100
1972	105.3	101.6	107.9	104	113	108
1973	110.3	101.6	116.6	108	127	117
1974	109.0	102.4	113.8	106	122	115
1975	106.7	100.0	111.5	106	119	111
1976	106.5	98.7	112.1	106	122	111
1977	103.6	94.8	110.0	105	119	109
1978	109.2	98.0	117.4	114	130	114
1977						
1st qtr	103.3	94.9	109.4	105	115	109
2nd	102.4	94.4	108.1	101	118	108
3rd	104.2	94.3	111.3	107	121	110
4th	104.7	95.6	111.3	109	122	109
1978						
1st qtr	106.4	96.6	113.6	111	124	111
2nd	107.9	97.8	115.3	111	129	113
3rd	110.7	98.1	119.9	117	134	116
4th	111.7	99.4	120.6	119	134	116
1978						
January	105.3	95.4	112.5	107	127	110
February	106.7	96.7	113.9	109	129	111
March [1]	107.2	97.5	114.2	116	118	112
April	106.9	96.6	114.5	108	130	112
May	108.2	98.3	115.4	113	127	112
June [1]	108.6	98.3	116.0	111	130	113
July	111.0	98.2	120.4	116	137	116
August	111.7	97.8	121.8	121	133	118
September [1]	109.6	98.2	118.0	115	133	114
October	110.2	98.3	118.8	115	132	116
November	110.5	98.6	119.2	115	132	116
December [1]	113.8	100.9	123.2	126	137	117
1979						
January	109.6	103.6	113.9	109	127	111
1978						
August-October	110.4	98.1	119.4	117	133	116
1978-1979						
November-January	111.5	101.0	119.1	117	132	115
Percentage increase	1.0	3.0	−0.3	–	–	−1

[1] Five-week period.
[2] Including department stores and mail-order businesses.

Table 2 Value of retail sales seasonally adjusted

Index numbers of value of sales per week (current prices) 1971 = 100

(Sales in 1971 – £ million Final estimates)	All kinds of business (16 296)	Food shops (6 866)	Non-food shops Total (9 430)	Clothing and footwear shops (2 436)	Durable goods shops (1 897)	Other non-food shops [2] (5 097)
1971	100.0	100.0	100.0	100	100	100
1972	112.0	109.0	114.2	112	118	114
1973	126.9	123.0	129.8	128	136	128
1974	146.7	144.9	148.1	148	144	149
1975	174.4	175.0	174.0	171	168	178
1976	200.1	204.8	196.7	189	187	204
1977	228.0	234.7	223.1	216	206	233
1978	260.1	261.8	258.8	255	244	266
1977						
1st qtr	216.7	224.2	211.2	205	192	221
2nd	222.0	230.4	215.9	204	201	227
3rd	233.7	238.8	230.0	223	213	240
4th	239.6	245.5	235.2	231	220	243
1978						
1st qtr	246.4	249.8	243.8	239	228	252
2nd	254.4	258.4	251.4	244	241	259
3rd	266.6	266.0	267.1	264	253	274
4th	273.0	273.1	273.0	272	255	280
1978						
January	241.7	245.3	239.1	229	231	247
February	246.3	249.7	243.9	235	235	252
March [1]	250.1	253.6	247.6	250	220	257
April	249.8	252.4	247.8	236	241	256
May	255.2	259.9	251.7	248	237	259
June [1]	257.4	261.9	254.1	246	244	262
July	265.0	264.5	265.3	260	255	272
August	269.2	265.7	271.9	273	252	279
September [1]	265.9	267.4	264.8	260	252	272
October	267.9	268.1	267.8	262	250	277
November	269.7	270.8	268.9	262	251	279
December [1]	279.8	278.9	280.4	289	262	283
1979						
January	273.1	291.3	259.9	254	241	270
1978						
August-October	267.6	267.1	267.9	265	251	276
1978-1979						
November-January	274.6	280.2	270.6	270	252	278
Percentage increase	2.6	4.9	1.0	2	–	1

[1] Five-week period.
[2] Including department stores and mail-order businesses.

Hire purchase and other instalment credit business in January

Finance houses and retailers advanced £491 million of new instalment credit in January, after allowing for seasonal factors. Lending by finance houses in January was higher than in December but lower than in November. Lending by retailers was higher than in recent months.

Total advances in the latest three months, November to January, were about the same as in the previous three months. Lending by finance houses decreased by 1 per cent between the two three-month periods. Lending by retailers increased by 2 per cent.

The average weekly value of instalment credit sales by retailers in January was higher than in December. In the latest three months, November to January, average sales were 2 per cent higher than in the previous three months. Within this total, sales by durable goods shops increased by 2 per cent, sales by department stores (including those by co-operative societies) increased by 5 per cent and sales by other instalment credit retailers (mainly mail-order business) increased by 1 per cent.

The debt outstanding to finance houses and retailers increased by £72 million in January, bringing the total increase in the three months November to January to £196 million, compared to £238 million in August to October. Amounts outstanding to finance houses increased by £160 million and those to retailers by £36 million during the latest three-month period. At the end of January, the total amount outstanding to finance houses and retailers was £4,317 million (*not* seasonally adjusted), 28 per cent more than a year earlier.

Inquiries: Department of Trade, Economics and Statistics Division 6a, Room 349, Sanctuary Buildings, 20 Great Smith Street, London SW1P 3DB, tel. 01-215 3162.

Table 1 Hire purchase and other instalment credit business seasonally adjusted

£ million

	Total		Finance houses[1]		Retailers[2]	
	New credit extended	Change in debt	New credit extended	Change in debt	New credit extended	Change in debt
1971	2 036	251	990	165	1 046	86
1972	2 466	438	1 222	296	1 244	142
1973	2 846	444	1 453	332	1 393	112
1974	2 508	−164	1 037	−160	1 471	−4
1975	2 981	−13	1 201	−55	1 780	42
1976	3 586	343	1 535	202	2 051	141
1977	4 392	625	2 072	500	2 320	125
1978	5 515	959	2 783	768	2 732	191
1977						
1st qtr	1 007	144	457	89	550	55
2nd	1 047	136	486	118	551	18
3rd	1 149	186	544	148	605	38
4th	1 189	159	585	145	604	14
1978						
1st qtr	1 263	252	630	187	633	65
2nd	1 398	290	722	233	676	57
3rd	1 429	231	705	172	724	59
4th	1 425	186	726	176	699	10
1978						
February	418	83	202	58	216	25
March	415	82	214	66	201	16
April	465	96	233	68	232	28
May	472	84	245	76	227	8
June	461	110	244	89	217	21
July	458	55	214	41	244	14
August	493	100	253	73	240	27
September	478	76	238	58	240	18
October	470	62	243	50	227	12
November	506	77	263	68	243	9
December	449	47	220	58	229	−11
1979						
January	491	72	241	34	250	38
1978						
Aug-Oct	1 441	238	734	181	707	57
1979						
Nov-Jan	1 446	196	724	160	722	36
Percentage increase	–		−1		2	

[1] Direct business only: ie excluding agreements block discounted with finance houses by retailers. [2] Durable goods shops, department stores and 'other instalment credit retailers'. For further definitions see footnotes to table 2.

Table 2 Retailers' instalment credit sales seasonally adjusted

Index numbers of value of sales per week (current prices)

1971 = 100

	Total[1]	Durable goods shops	Department stores	Other instalment credit retailers[2]
(HP and other instalment credit sales in 1971 £ million[3])	(1130)	(370)	(139)	(621)
1971	100	100	100	100
1972	117	117	106	120
1973	132	119	119	143
1974	139	94	122	169
1975	165	115	143	200
1976	190	136	162	229
1977	217	142	171	272
1978	257	169	204	320
1977				
1st qtr	205	135	166	256
2nd	210	136	153	266
3rd	227	148	179	284
4th	227	148	184	283
1978				
1st qtr	237	167	183	291
2nd	254	171 r	199	315
3rd	272	174	219	342
4th	264	166	214	334
1978				
February	244	166	189	302
March [4]	228	157	175	281
April	262	184	178	326
May	255	167	196	321
June [4]	246	165	218	300
July	275	178	231	343
August	271	174	205	344
September [4]	270	170	221	340
October	258	162	205	327
November	274	166	227	349
December	260	168	211	326
1979				
January	281	182	229	352
1978				
Aug-Oct av.	267	169	211	337
1979				
Nov-Jan av.	271	172	221	341
Percentage Increase	2	2	5	1

[1] Durable good shops, department stores (including co-operative societies) and 'other instalment credit retailers'. [2] General stores (other than department stores) and general mail-order houses. [3] Excluding sales against checks issued by other organisations. [4] The monthly periods for retailers consists of four weeks except those marked [4] which are of five weeks. The period covered by January 1979 sales was the four weeks from 31 December 1978 to 27 January 1979. The corresponding period in 1978 was from 1 January 1978 to 28 January 1978.

Wholesale price indices in February

Output prices

The provisional price index for the home sales of manufactured products increased by 1 per cent in February to 161.5 (1975=100).

The index for manufactured products other than food, drink and tobacco was 1¼ per cent higher. Higher prices for petroleum products accounted for a third of the increase. This index rose by 3 per cent in the latest three months.

The index for the output of the food manufacturing industries increased by ¾ per cent in February. Higher prices for animal and poultry foods again made the most significant contribution. This index rose by 3 per cent in the latest three months.

The change in the index for all manufactured products measured over a 12-month period increased from 7¾ per cent to 8¼ per cent. The increase in the index over the latest six months rose from 4 to 4¼ per cent.

Input prices

The provisional price index for materials and fuel purchased by manufacturing industry increased by ½ per cent in February to 151.1. This index rose by 8¾ per cent over the last 12 months.

The index for materials purchased by manufacturing industry other than the food, drink and tobacco industries increased by 1¼ per cent. The index for materials other than crude oil rose 2 per cent; further higher prices for hides and skins made the most significant contribution, and there were higher prices for several metals especially copper, lead, cobalt and gold.

Lower prices for home landed fish and coffee were mainly responsible for the ¾ per cent fall in the index for materials purchased by the food manufacturing industries.

1975=100

	Dec	Jan p	Feb p
Output prices (home sales)			
All manufactured products	158.3	159.8	161.5
Products of manufacturing industry other than food, drink and tobacco industries	156.0	157.8	159.8
Products of the food manufacturing industries	167.6	168.9	170.0
Prices of materials and fuel purchased			
By manufacturing industry	148.3	150.4	151.1
materials	147.5	150.0	150.7
coal, gas and electricity	153.1	153.1	153.0
By manufacturing industry other than food, drink and tobacco industries	141.3	144.1	145.7
materials	139.1	142.3	144.2
By food manufacturing industries	163.1	164.3	163.2
materials	163.4	164.7	163.4

p=provisional

ECGD addresses

The Export Credits Guarantee Department's head office is at Aldermanbury House, Aldermanbury, London EC2P 2EL, tel. 01-606 6699.

Orders for new construction in December

In December 1978 contractors received new orders to the total value of £630 million for construction work in Great Britain.

Expressed at constant (1975) prices and adjusted to exclude normal seasonal variations, total new orders in the fourth quarter of 1978 were 2 per cent lower than in the third quarter but 6 per cent higher than in the fourth quarter of 1977. In 1978 as a whole, total new orders were 9 per cent higher than in 1977.

New orders in the public housing sector in the fourth quarter were down 16 per cent on the previous quarter and down 22 per cent on the fourth quarter of 1977: orders in 1978 were 6 per cent lower than in 1977. For the same periods of comparison, private housing orders in the quarter were higher by 6 per cent and 20 per cent, respectively, and in the year rose 19 per cent.

Public works new orders received by contractors in the fourth quarter were up 1 per cent on the previous quarter and 7 per cent on the corresponding quarter of 1977: in the year, orders increased 2 per cent on 1977. Orders for private industrial work were down 12 per cent on the third quarter of 1978 but up 2 per cent on the fourth quarter of 1977: orders in 1978 were 10 per cent higher than in 1977. Private commercial orders were unchanged on the previous quarter and 21 per cent up on the fourth quarter of 1977, while in the year as a whole there was a 25 per cent increase.

Value of new orders obtained by contractors
Great Britain

	New housing [1]			Other new work					
					Private sector				
	Public	Private	Total	Public	Industrial	Commercial	Total	Total	Total new work
1975	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1976	93.7	112.1	101.9	103.7	116.5	113.8	115.1	108.1	105.5
1977	67.5	102.6	83.1	85.3	139.9	122.0	130.4	102.7	94.6
1978 p	63.7	122.3	89.7	86.6	154.4	152.9	153.6	112.6	103.1
1977									
3rd qtr	68.2	106.4	85.1	86.9	142.7	119.7	130.4	103.8	96.1
4th qtr	70.2	115.4	90.3	87.0	137.8	123.1	130.0	103.7	98.1
1978									
1st qtr	65.4	109.4	84.9	84.9	158.9	165.4	162.4	114.3	102.2
2nd qtr	69.1	112.1	88.2	77.2	158.9	148.3	153.2	106.6	99.0
3rd qtr	65.2	129.8	93.8	92.1	159.5	149.2	154.0	116.1	106.9
4th qtr p	54.9	138.1	91.8	93.2	140.3	148.9	144.9	113.2	104.4
1977									
December	74.6	125.5	97.2	95.7	163.3	147.2	154.8	118.6	109.7
1978									
January	68.8	105.3	85.0	76.6	173.3	170.9	172.0	113.6	101.8
February	64.5	111.1	85.2	108.1	152.1	131.5	141.1	120.9	106.1
March	62.9	111.9	84.6	67.2	151.4	193.7	173.9	108.5	98.6
April	66.3	103.0	82.6	72.8	159.6	143.7	151.1	103.1	94.6
May	77.9	110.8	92.5	83.9	166.0	147.5	156.1	111.9	103.9
June	63.1	122.3	89.4	74.9	151.2	153.5	152.5	104.9	98.5
July	59.1	119.6	85.9	82.1	133.5	130.8	132.0	101.4	95.0
August	72.3	138.0	101.5	89.3	182.1	151.1	165.6	118.8	111.7
September	64.1	131.8	94.1	104.9	162.8	165.8	164.4	127.9	114.0
October	55.2	125.3	86.3	114.6	171.1	120.0	143.9	125.9	109.5
November p	60.0	158.2	103.6	66.4	97.5	185.1	144.2	96.5	99.4
December p	49.7	130.9	85.7	98.7	152.5	141.7	146.7	117.3	104.2

[1] Excludes orders for home improvement work. p Provisional.

Earnings and hours of manual workers

Weekly earnings of full-time manual men (aged 21 and over) in industries covered by the Department of Employment's annual survey averaged about £83.50 for 44½ hours in October 1978 – about £10.60 (14.6 per cent) higher than in October 1977. The earnings of full-time manual women (aged 18 and over) averaged about £50 for 37½ hours – about £5.70 (12.9 per cent) higher than in October 1977. The combined average of the weekly earnings of these men and women was about £77.40.

In manufacturing industries, in October 1978, the earnings of full-time men averaged about £84.80 for 43½ hours and those of full-time women about £50.10 for 34¼ hours – about £11.20 (15.2 per cent) and £5.60 (12.7 per cent) higher than in October 1977. The combined average of the weekly earnings of these men and women was about £76.10.

These are among the provisional results of the annual October 1978 survey of the earnings and hours of manual workers in manufacturing and certain other industries. The survey covers all manufacturing, construction, gas, electricity and water supply, mining and quarrying (other than coal mining), transport and communication (other than rail and sea) industries, public administration and some miscellaneous services. General results of the survey for the last five years are given in the table. Full results of the 1978 survey will be published in the February issue of the *Department of Employment Gazette*.

The earnings include supplements, overtime pay, productivity payments, bonuses, shift premium payments, etc, and a proportionate weekly share of annual and other periodical bonuses. They are gross, that is before income tax, national insurance, pension scheme and other deductions.

The survey is a voluntary one which was conducted twice a year from 1938 to 1970 (in April and October) and once a year subsequently. Returns are received from about 35 000 establishments covering some 5 million workers, about two-thirds of manual workers employed in the industries surveyed.

The survey covers all categories of manual workers including foremen and supervisors (other than works and other high level foremen), production, maintenance, transport, warehouse and canteen workers who were at work for the whole or part of the survey reference week. The survey results thus include those whose pay was affected by absence or short-time working during the week.

Inquiries: Department of Employment, Orphanage Road, Watford, Herts WD1 1PJ, tel. Watford 28500 ext. 319.

Manual workers' average earnings and average weekly hours: October 1974-78
United Kingdom

	Men (21 years and over)			Youth and boys			Women (18 years and over)						Girls		
							Full-time			Part-time					
Date of survey	Weekly earnings (£)	Hours	Hourly earnings (p)	Weekly earnings (£)	Hours	Hourly earnings (p)	Weekly earnings (£)	Hours	Hourly earnings (p)	Weekly earnings (£)	Hours	Hourly earnings (p)	Weekly earnings (£)	Hours	Hourly earnings (p)
All industries covered by surveys															
October 1974	48.63	45.1	107.8	26.00	41.2	63.1	27.01	37.4	72.2	14.28	21.2	67.4	19.23	37.8	50.9
October 1975	59.58	43.6	136.7	33.08	40.4	81.9	34.19	37.0	92.4	18.02	21.2	85.0	23.03	37.5	61.4
October 1976	66.97	44.0	152.2	37.94	40.5	93.7	40.61	37.4	108.6	21.50	21.2	101.4	26.70	37.5	71.2
October 1977	72.89	44.2	164.9	41.30	40.5	102.0	44.31	37.4	118.5	23.14	21.0	110.2	29.74	37.6	79.1
October 1978	83.50	44.2	188.9	46.98	40.6	115.7	50.03	37.4	133.8	26.20	21.1	124.2	33.18	37.6	88.2
Manufacturing industries only															
October 1974	49.12	44.0	111.6	26.31	40.3	65.3	27.05	37.2	72.7	14.56	21.4	68.0	19.31	37.8	51.1
October 1975	59.74	42.7	139.9	32.87	39.7	82.8	34.23	36.8	93.0	18.38	21.4	85.9	23.15	37.5	61.7
October 1976	67.83	43.5	155.9	37.75	40.0	94.4	40.71	37.2	109.4	22.06	21.6	102.1	26.87	37.6	71.5
October 1977	73.56	43.6	168.7	41.16	40.0	102.9	44.45	37.2	119.5	23.90	21.5	111.2	29.90	37.6	79.5
October 1978	84.77	43.5	194.9	47.96	40.0	119.9	50.08	37.2	134.6	27.13	21.6	125.6	33.33	37.6	88.6

Survey of company liquidity: fourth quarter 1978

The liquidity of the companies replying to the Department of Industry's survey of company liquidity fell further in the fourth quarter of 1978 but not by as great an amount as in the previous quarter. The companies' net current assets, seasonally adjusted, fell by about £130 million in the quarter.

Their liquidity ratio (total current assets as a percentage of total current liabilities), also seasonally adjusted, fell from 123 per cent at the beginning of the quarter to 119 per cent at the end. On a seasonally unadjusted basis, non-manufacturing companies more than accounted for the fall in liquidity; the unadjusted liquidity of manufacturing companies showed some increase.

During 1978 as a whole the companies' net current assets rose by about £250 million compared with an increase of about £950 million in 1977 and the seasonally adjusted liquidity ratio increased from 113 per cent at the end of 1977 to 119 per cent at the end of 1978.

Chart 1 illustrates the seasonally adjusted changes in the companies' net current assets and in their liquidity ratio after other adjustments to allow for changes in the survey's coverage at the end of each year, making the results comparable over the whole period of the survey. This shows that the changes in net current assets and the liquidity ratio in the fourth quarter of 1978 were relatively small in comparison with recent movements; the levels are still above the previous peak in 1973. The liquidity ratio is the better measure over a long period because it is not directly influenced by inflation.

It must be kept in mind that the net current assets and the liquidity ratio do not summarise the whole financial position of the companies, only the position on the selected current assets and liabilities covered by the survey, which vary in importance between different companies. The aggregate changes conceal differing movements for individual companies. Also the survey covers only 230 or so large companies which may not be representative of industrial and commercial companies as a whole. Since early 1977, the companies in the survey appear to have been more liquid than industrial and commercial companies in general.

Tables 1 and 2 show that, seasonally adjusted, the companies' total current assets fell by about £60 million and their total current liabilities rose by about £70 million, giving a fall in net current assets of about £130 million compared with the revised estimate of a fall of about £570 million in the previous quarter. On an unadjusted basis, total current assets fell by £163 million while liabilities rose by £80 million, giving a fall in net current assets of £243 million compared with a fall of £318 million in the previous quarter. In 1978 as a whole total current assets rose by about £380 million or 9 per cent and total current liabilities by about £120 million or 3 per cent.

Manufacturing and non-manufacturing companies

The liquidity of manufacturing and non-manufacturing companies moved in different directions in the fourth quarter. Table 3 shows that, unadjusted, total current assets of companies mainly engaged in manufacturing rose by £45 million and total current liabilities fell by £14 million, giving a rise in net current

Chart 1 **Liquidity ratio and net current assets: all survey companies**
(Adjusted to allow for changes in coverage, seasonally adjusted)

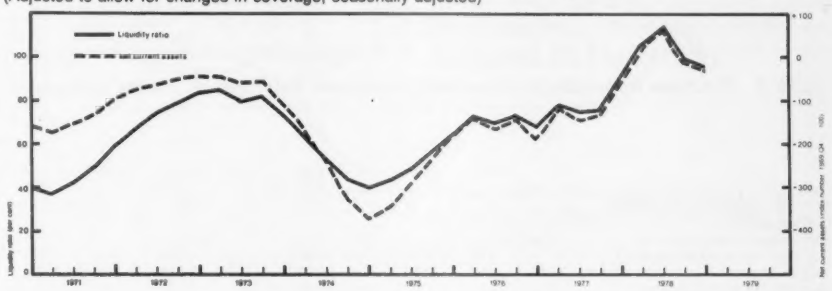


Table 1 **Holdings of current assets and liabilities by survey companies [1]: amounts outstanding at end of period** £ million

	1976		1977					1978			
	4th qtr	4th qtr	1st qtr	2nd qtr	3rd qtr	4th qtr	4th qtr	1st qtr	2nd qtr	3rd qtr	4th qtr
Number of companies [2]	211	210	210	210	210	210	228	228	228	228	228
NOT SEASONALLY ADJUSTED											
Current assets											
Deposits with banks in the UK:											
Clearing banks	873	887	958	846	921	1 064	1 093	1 194	1 403	1 248	1 283
Other banks	1 246	1 249	1 340	1 326	1 312	1 525	1 749	2 013	2 330	1 976	1 910
Deposits with finance houses [3]	122	121	108	157	154	171	190	192	219	211	155
Deposits with building societies	3	3	3	3	3	6	7	10	6	5	5
Negotiatable certificates of deposit (sterling and dollar)	127	119	122	155	169	74	66	210	153	129	130
British government securities	298	289	301	336	353	377	437	418	438	446	435
Local authority bills and temporary money	238	234	244	191	178	171	166	162	123	136	131
Local authority mortgages and loans	64	65	88	80	91	73	106	93	77	72	64
Other current assets [4]	49	52	65	82	287	365	427	289	239	557	503
Total current assets [5]	3 021	3 019	3 228	3 176	3 469	3 826	4 239	4 580	4 988	4 779	4 616
Current liabilities											
Advances and loans from banks and other financial institutions in the UK:											
Clearing banks [6]	2 000	1 952	1 794	1 814	1 674	1 682	1 837	1 686	1 886	1 822	1 927
Other banks [6]	1 658	1 464	1 481	1 541	1 689	1 586	1 792	1 717	1 630	1 794	1 774
Other financial institutions [7]	72	49	57	64	74	52	59	93	108	118	112
Total current liabilities [5]	3 730	3 465	3 331	3 419	3 437	3 320	3 689	3 495	3 624	3 733	3 813
Net current assets	−709	−446	−103	−243	32	506	550	1 085	1 364	1 046	803
Liquidity ratio (per cent) [8]	81	87	97	93	101	115	115	131	138	128	121
SEASONALLY ADJUSTED											
Total current assets	3 003	3 001	3 254	3 213	3 379	3 808	4 219	4 608	5 046	4 652	4 596
Total current liabilities	3 771	3 503	3 308	3 397	3 478	3 358	3 731	3 478	3 602	3 781	3 855
Net current assets	−768	−502	−54	−184	−99	450	488	1 130	1 444	871	741
Liquidity ratio (per cent) [8]	80	86	98	95	97	113	113	132	140	123	119

Notes

[1] Companies in the Department of Industry's survey of company liquidity.
[2] Estimates are included until the end of the year for companies that ceased to reply during the year; those companies are then removed from the survey. Some companies were brought into the survey at the end of 1977. Two sets of figures are given for the fourth quarters to show the effects of these and other changes in coverage at year-ends.
[3] From the beginning of 1978, including only deposits with an initial term of not more than 12 months.
[4] Other current assets comprise holdings of notes and coin, Treasury bills and tax instruments.
[5] Components are rounded independently of the totals.
[6] From the beginning of 1975, including only advances and loans with an initial term of not more than 12 months.
[7] Including only advances and loans with an initial term of not more than 12 months.
[8] Total current assets as a percentage of total current liabilities.

assets of £59 million following the falls of £317 million in the third quarter and £108 million in the second quarter. Over the year as a whole there were fairly small increases in both total current assets and total current liabilities, resulting in a fall of £36 million in net current assets following an increase of £441 million in 1977.

Non-manufacturing companies' total current assets fell by £208 million in the fourth quarter and their total current liabilities rose by £92 million, giving a fall in net current assets of £300 million after hardly any change in the previous quarter. In the year as a whole their total current assets increased by £266 million while their total current liabilities fell slightly; net current assets rose by £290 million compared with the rise of £510 million in 1977.

Charts 2 and 3, which are not seasonally adjusted but which have been adjusted to make results comparable over the whole period of the survey, show that the total current assets of both manufacturing and non-manufacturing companies are still historically high. Total current liabilities for manufacturing companies are still above the levels of 1976 and 1977 but for non-manufacturing companies, despite the rise in the fourth quarter, are still below the levels experienced in the years 1975 to 1977.

Chart 2 **Total current assets: manufacturing and non-manufacturing survey companies**
(Adjusted to allow for changes in coverage, not seasonally adjusted)

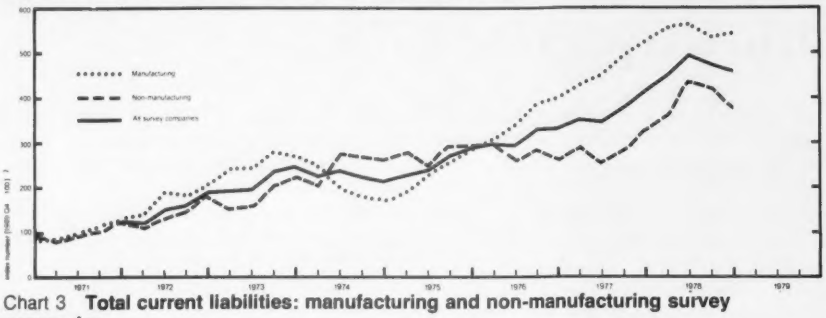


Chart 3 **Total current liabilities: manufacturing and non-manufacturing survey companies**
(Adjusted to allow for changes in coverage, not seasonally adjusted)

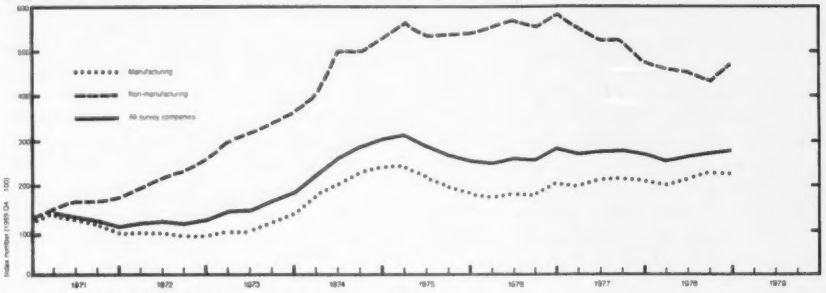


Table 2 **Changes in holdings of current assets and liabilities of survey companies** [1]

£ million

	1972	1973	1974	1975	1976	1977	1978	1977 1st qtr	1977 2nd qtr	1977 3rd qtr	1977 4th qtr	1978 1st qtr	1978 2nd qtr	1978 3rd qtr	1978 4th qtr
NOT SEASONALLY ADJUSTED															
Current assets:															
Deposits with banks in the UK:															
Deposit banks/clearing banks [6]	117	173	73	133	215	177	190	71	−112	75	143	101	209	−155	35
Other banks [6]	240	258	21	302		276	161	91	−14	−14	213	264	317	−354	−66
Deposits with finance houses [2]	−21	−17	−101	33	25	50	−35	−13	49	−3	17	2	27	−8	−56
Deposits with building societies	−2	3	−1	−1	—	3	−2	—	—	—	3	3	−4	−1	—
Negotiable certificates of deposit (sterling and dollar)	231	−47	−144	−12	30	−45	64	3	33	14	−95	144	−57	−24	1
British government securities	16	39	−39	92	123	88	−2	12	35	17	24	−19	20	8	−11
Local authority bills and temporary money	55	121	−120	22	43	−63	−35	10	−53	−13	−7	−4	−39	13	−5
Local authority mortgages and loans	14	−10	15	−1	11	8	−42	23	−8	11	−18	−13	−16	−5	−8
Other current assets [4]	−4	−23	7	92	−69	313	76	13	17	205	78	−138	−50	318	−54
Total current assets [5]	645	495	−291	663	379	807	377	209	−52	293	357	341	408	−209	−163
Current liabilities:															
Advances and loans from banks and other financial institutions in the UK:															
Deposit banks/clearing banks [6] [8]	162	611	765	−558	405	−270	90	−158	20	−140	8	−151	200	−64	105
Other banks [6] [8]	20	306	913	−100		122	−18	17	60	148	−103	−75	−87	164	−20
Other financial institutions [7]	27	9	30	9	−49	3	53	8	7	10	−22	34	15	10	−6
Total current liabilities [5]	209	924	1 708	−649	356	−145	124	−134	88	18	−117	−194	129	109	80
Net current assets	436	−429	−1 999	1 312	23	952	253	343	−140	275	474	535	279	−318	−243
SEASONALLY ADJUSTED															
Total current assets								253	−41	166	429	389	435	−391	−56
Total current liabilities								−195	89	81	−120	−252	126	176	74
Net current assets								448	−130	85	549	641	309	−567	−130

Notes: 1 and 3-7: see table 1. [8] To the end of 1975, the figures relate to the former groupings of deposit banks and other banks; from the beginning of 1976, five banks that were deposit banks have been re-grouped as other banks and the remainder renamed clearing banks. Combined figures are given for 1976 to avoid any possibility of disclosing figures relating to individual companies.

Table 3 **Holdings of current assets and liabilities by manufacturing and non-manufacturing survey companies [1]: amounts outstanding at end of period**

£ million

	1976	1977					1978			
	4th qtr	4th qtr	1st qtr	2nd qtr	3rd qtr	4th qtr	4th qtr	1st qtr	2nd qtr	3rd qtr	4th qtr
MANUFACTURING COMPANIES											
Number of companies [8]	143	143	143	143	143	143	155	155	155	155	155
Not seasonally adjusted											
Total current assets [5]	1 775	1 762	1 879	1 966	2 144	2 284	2 659	2 846	2 884	2 725	2 770
Total current liabilities [5]	2 305	2 134	2 064	2 205	2 230	2 215	2 426	2 283	2 429	2 587	2 573
Net current assets	−530	−372	−185	−239	−86	69	233	563	455	138	197
Liquidity ratio (per cent) [9]	77	83	91	89	96	103	110	125	119	105	108
NON-MANUFACTURING COMPANIES											
Number of companies [8]	68	67	67	67	67	67	73	73	73	73	73
Not seasonally adjusted											
Total current assets [5]	1 246	1 258	1 349	1 211	1 324	1 542	1 580	1 735	2 104	2 054	1 846
Total current liabilities [5]	1 425	1 331	1 267	1 213	1 207	1 105	1 263	1 212	1 195	1 147	1 239
Net current assets	−179	−73	82	−2	117	437	317	523	909	907	607
Liquidity ratio (per cent) [9]	87	95	106	100	110	140	125	143	176	179	149

See notes 1, 2, 5 and 8 to table 1.

For both types of company, the level of total current liabilities since the beginning of 1975 may have been affected by possible switching from short-term to longer-term borrowing, which, as mentioned in the notes at the end of this article, has not been covered by the survey since the beginning of 1975.

Changes in the composition of holdings

Table 2 shows that, not seasonally adjusted, the main falls in current assets in the fourth quarter were in deposits with banks other than the clearing banks, deposits with finance houses and the residual 'other current asset' category. Deposits with finance houses fell by £56 million or by over a quarter. Deposits with clearing banks increased. In the year 1978 deposits with clearing banks rose by £190 million and with other banks by £161 million. There were smaller increases in negotiable certificates of deposit and 'other current assets' and moderate falls in deposits with finance houses, local authority bills and temporary money and local authority mortgages and loans.

On the liabilities side, an increase in borrowing from clearing banks in the fourth quarter more than offset small reductions in borrowing from other banks and financial institutions. In the year as a whole borrowing from clearing banks increased by £90 million after falling by £270 million in 1977. Borrowing from other banks fell by £18 million compared with a rise of £122 million in the previous year, and borrowing from other financial institutions increased by £53 million after little change in 1977.

Notes

About 230 of the largest United Kingdom industrial and commercial companies contribute to this survey, which covers certain assets and liabilities in the United Kingdom that can be realised or that are due to be paid, formally at least, within 12 months. An article describing the background to the survey, and reviewing the results since its start at the beginning of 1970, was published in *Economic Trends* for November 1974. A further article, in the May 1977 issue of *Economic Trends*, compared the results of the survey with those for all industrial and commercial companies up to the end of 1976.

The companies taking part are not a representative sample of industrial and commercial companies. Not all large companies are included and no small ones.

Another important limitation is that the results can give only part of the complete financial picture that would be given by the full sources and uses of funds account. This applies, in particular, to the two summary measures of liquidity, net current assets and the liquidity ratio, as the article in the November 1974 issue of *Economic Trends* explains. Furthermore, these measures, and the results as a whole, are aggregates for the survey group and they mask wide variation in the financial positions of individual companies.

There is a break in the results of the survey at the end of each year and two sets of figures for the fourth quarters of 1976 and 1977 are given in the tables with this article to show the effects. One reason for this is that since the beginning of the survey some companies have ceased to reply. Estimates for those companies are included in the tables until the end of the year in which they ceased to reply, except for companies that ceased to reply because they had amalgamated with other companies in the survey. There have been changes in coverage within a few companies at the beginning of 1977, to make the coverage of this survey as close as possible to the coverage of the survey of company sources and uses of funds and in addition several extra companies began to contribute from the beginning of 1978, giving a net increase in the number of companies.

Some changes in coverage, resulting from changes in definitions, were made in earlier years. In particular, at the beginning of 1975 the definition of current liabilities was clarified and companies were asked to exclude all advances and loans with an initial loan term of over 12 months. More recently, at the beginning of 1976, five banks that were deposit banks were re-grouped with other banks and the remainder of the group has been renamed clearing banks to conform with the reclassification of banks made by the Bank of England in 1975. Total figures for changes in deposits with banks and borrowing from banks are given for 1976 in table 2 to avoid any possibility of disclosure of individual company holdings as a result of this change.

Inquiries: Departments of Industry, Trade, and Prices and Consumer Protection, Economics and Statistics Division 6a, Room 166, 1 Victoria Street, London SW1H 0ET, tel. 01-215 5538.

Average earnings in December and basic rates of wages in January

Average earnings of employees in Great Britain are estimated to have risen by 13.4 per cent between December 1977 and December 1978. This estimate is based on the monthly index for the whole economy, covering about 21 million employees, which was introduced from January 1976. Figures are given in table 1.

Table 1 **Index of average earnings of employees in Great Britain**

Whole economy (new) series, not seasonally adjusted

	Index Jan 1976 = 100	Percentage increase over 12 months
1977		
November	120.1	8.6
December	121.7	9.4
1978		
January	121.5	9.5
February	122.7	10.5
March	125.0	10.4
April	127.2	12.4
May	129.4	12.6
June	133.1	15.4
July	133.6	14.2
August	131.7	13.9
September	134.2	15.1
October	135.2	14.7
November	136.1	13.3
December p	138.1	13.4

p Provisional.

In the production and certain other industries (see footnote to table 2) about 11 million employees, and covered by the older series index introduced from January 1963, earnings increased by about 15.3 per cent over the 12 months to December. Figures are given in table 2.

Table 2 **Index of average earnings in production industries and some services** [1]

Older series

		Seasonally adjusted		
	Index January 1970 = 100	Index January 1970 = 100	Percentage increase over previous month	Percentage increase over previous 12 months
1978				
May	330.9	327.2	0.4	14.5
June	336.6	334.0	2.1	16.6
July	338.0	332.7	−0.4	16.2
August	332.8	333.2	0.1	15.8
September	339.6	338.0	1.5	16.2
October	345.6	344.8	2.0	16.6
November	347.9	343.5	−0.4	14.3
December p	351.6	351.4	2.3	15.3

p Provisional.

[1] Transport and communication (other than sea transport and postal services) and some miscellaneous services.

Indices of basic rates of wages

At the end of January 1979, nationally negotiated basic weekly rates of wages of manual workers were on average 16.4 per cent higher than a year earlier. During January, the index of basic weekly rates increased from 271.6 to 275.2.

The indices take account of changes in nationally negotiated rates only. The year-on-year increases consequently reflect that national rates for engineering workers remained unchanged from February 1976 until April 1978.

Table 3 **Indices of basic rates of wages**

	Indices, 31 July 1972 = 100		Percentage increase over previous 12 months	
	Basic weekly rates	Basic hourly rates	Basic weekly rates	Basic hourly rates
1978				
31 August	266.1	267.7	16.3	16.3
30 September	266.3	267.9	16.3	16.3
31 October	270.4	272.0	17.9	17.9
30 November	271.6	273.2	17.5	17.5
31 December	271.6	273.3	16.6	16.6
1979				
31 January	275.2	276.9	16.4	16.4

Inquiries: Department of Employment, Orphanage Road, Watford, Herts WD1 1PJ, tel. Watford 28500 ext. 319.

New companies registered in Northern Ireland in December

The number of companies registered in Northern Ireland in December and nominal capital are as follows:

	Dec 1978	Jan to Dec 1978	Dec 1978
Public companies limited by shares	—	—	—
Private companies limited by shares	71	795	73
Private unlimited companies	—	3	—
Public companies limited by guarantee not having a share capital	1	6	—
Private companies limited by guarantee not having a share capital	—	8	—
Private companies limited by guarantee having a share capital	—	—	—
Total nominal capital of companies incorporated	£3 884 700	£39 498 326	£8 055 605

Amendments to information previously supplied

June

64 private companies limited by shares
1 private unlimited company
1 public company limited by guarantee not having a share capital
Total nominal capital of companies incorporated £3,127,100

October

78 private companies limited by shares
1 private unlimited company
1 public company limited by guarantee not having a share capital
1 private company limited by guarantee not having a share capital
Total nominal capital unchanged

Import penetration: UK manufacturers' overseas trade performance in 1978

After levelling off in 1977, the import penetration [1] of manufactured goods rose further to 25 per cent in the year ending September 1978. The share of manufacturers' sales accounted for by exports also registered a small increase and by the year ended September 1978 was 26 per cent. Thus despite the slow growth in world trade British producers achieved some expansion in exports but failed to prevent an overall increase in import penetration at a time of strong growth in domestic demand.

Sectoral analysis [2]

In many broad sectors of industry the picture is one of stability, trade in neither direction showing significant growth or decline. The food and drink sector [3] is untypical in that a steady improvement in export performance has continued while import penetration, after a rise in 1977, has been pushed downward again in recent periods.

Import penetration and export sales ratios to September 1978 [2]

per cent

SIC reference	Product group	Ratio 1 Imports/home demand — 12 months ended									Ratio 2 Imports/home demand plus exports — 12 months ended								
		Sep 76	Dec 76	Mar 77	Jun 77	Sep 77	Dec 77	Mar 78	Jun 78	Sep 78	Sep 76	Dec 76	Mar 77	Jun 77	Sep 77	Dec 77	Mar 78	Jun 78	Sep 78
Order III (excluding MLH's 239 and 240)	**Food and drink**	**18**	**18**	**19**	**19**	**20**	**19**	**19**	**18**	**17**	**18**	**18**	**18**	**18**	**19**	**18**	**18**	**17**	**16**
Order IV	**Coal and petroleum products**	**16**	**15**	**14**	**14**	**13**	**14**	**15**	**15**	**15**	**14**	**13**	**13**	**12**	**12**	**12**	**13**	**13**	**13**
Order V	**Chemicals and allied industries**	**25**	**25**	**26**	**27**	**27**	**27**	**28**	**28**	**28**	**18**	**18**	**19**	**19**	**19**	**19**	**19**	**20**	**20**
MLH 271.2	Organic chemicals	32	33	34	34	35	36	37	39	39	23	23	24	24	25	25	26	26	26
MLH 272	Pharmaceuticals	18	19	19	20	20	19	18	18	18	12	13	13	13	13	13	12	12	12
MLH 276	Synthetic resins and plastics materials	33	34	34	34	35	35	36	37	38	24	25	25	25	26	26	26	27	28
Order VI	**Metal manufacture**	**23**	**24**	**23**	**24**	**24**	**23**	**23**	**23**	**23**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**19**	**19**
MLH 311 and 312	Iron and steel and steel tubes	19	19	18	18	18	17	18	17	18	16	16	16	15	15	14	15	15	15
MLH 313	Iron castings	4	5	5	5	4	4	4	3	3	4	4	5	4	4	4	3	3	3
MLH 321 to 323	Non-ferrous metals	36	37	38	38	39	39	39	39	38	30	31	31	31	32	32	32	32	31
Order VII (excluding MLH 342)	**Mechanical engineering**	**29**	**29**	**30**	**30**	**30**	**29**	**29**	**30**	**31**	**18**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**20**
MLH 332	Machine tools	45	45	46	46	44	44	43	44	44	28	29	30	30	28	28	28	29	29
MLH 333	Pumps, valves and compressors	29	30	30	30	31	30	29	29	28	18	19	19	19	19	19	19	18	18
MLH 334	Industrial engines	22	21	23	22	22	22	21	22	22	12	12	13	13	13	13	12	13	13
MLH 335	Textile machinery	69	73	66	63	61	56	55	55	56	24	26	26	26	27	27	27	27	28
MLH 336	Construction equipment	58	58	58	60	62	64	70	74	81	22	23	24	23	23	22	21	23	24
MLH 337	Mechanical handling equipment	22	23	23	23	22	24	24	24	24	15	15	16	15	15	16	16	17	17
MLH 338	Office machinery	84	84	85	85	88	91	99	108	109	47	48	49	48	47	47	48	50	52
MLH 339	Other machinery	32	33	33	33	34	33	33	34	34	21	21	21	22	22	22	22	23	23
MLH 341	Industrial plant and steelwork	11	10	9	8	8	9	10	10	11	8	7	7	6	6	6	7	7	7
Order VIII	**Instrument engineering**	**54**	**54**	**55**	**55**	**54**	**54**	**53**	**54**	**55**	**34**	**34**	**35**	**35**	**35**	**34**	**34**	**34**	**35**
MLH 353 and 354	Surgical, scientific and industrial instruments	43	42	42	42	41	40	40	41	42	28	28	28	27	27	27	26	27	28
Order IX	**Electrical engineering**	**31**	**32**	**34**	**34**	**35**	**35**	**35**	**35**	**35**	**22**	**23**	**24**	**25**	**25**	**25**	**25**	**25**	**25**
MLH 361	Electrical machinery	20	20	21	20	21	21	22	24	25	13	13	13	13	13	13	13	14	15
MLH 363	Telegraph and telephone apparatus	14	14	12	10	10	10	11	11	11	11	11	9	8	8	8	9	9	9
MLH 364	Electronic components	48	50	51	53	53	52	52	51	52	32	34	35	36	36	35	35	35	35
MLH 365.2	Other broadcast receiving and sound reproducing equipment [4]	40	41	43	45	48	48	46	43	43	33	35	37	39	41	41	40	37	37
MLH 366	Electronic computors	75	78	82	82	83	82	80	82	84	47	49	52	52	52	51	51	52	52
MLH 367	Electronic capital goods	24	23	23	24	23	23	23	24	24	15	15	15	15	15	15	15	15	16
MLH 368	Domestic electrical appliances	26	27	28	30	30	30	30	29	29	21	22	23	24	25	24	24	23	23
Order X	**Shipbuilding and marine engineering**	**45**	**39**	**42**	**41**	**42**	**48**	**47**	**49**	**50**	**35**	**30**	**33**	**31**	**32**	**37**	**37**	**39**	**39**
Order XI	**Vehicles**	**31**	**32**	**34**	**36**	**36**	**37**	**40**	**41**	**43**	**20**	**20**	**22**	**23**	**24**	**24**	**26**	**27**	**28**
Order XII (excluding MLH 396)	**Metal goods not elsewhere specified**	**11**	**11**	**11**	**12**	**12**	**12**	**12**	**12**	**12**	**9**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**
MLH 390	Engineers small tools and gauges	17	17	17	18	18	17	17	17	17	14	14	14	14	14	14	14	14	14
Order XIII (excluding MLH 423)	**Textiles**	**26**	**26**	**27**	**27**	**28**	**28**	**29**	**29**	**30**	**21**	**21**	**21**	**21**	**22**	**22**	**22**	**23**	**23**
MLH 411	Man-made fibres	30	30	32	34	36	38	39	39	39	22	22	22	23	23	24	25	25	26
MLH 414	Woollen and worsted	18	18	18	18	18	18	18	19	20	13	13	13	13	13	12	13	13	14
MLH 417	Hosiery and other knitted goods	20	21	22	22	22	21	21	21	22	17	18	18	18	18	18	17	18	18
Order XIV (excluding MLH 433)	**Leather and leather goods**	**29**	**30**	**31**	**32**	**32**	**31**	**32**	**32**	**32**	**23**	**24**	**25**	**25**	**26**	**25**	**25**	**25**	**26**
Order XV MLH 441 to 445 and 449	**Clothing and footwear**	**25**	**26**	**26**	**26**	**26**	**26**	**25**	**25**	**26**	**22**	**23**	**23**	**23**	**22**	**22**	**22**	**22**	**22**
	Clothing other than headgear	24	25	25	25	25	24	24	24	25	22	22	22	21	21	21	21	21	21
MLH 450	Footwear	26	28	29	30	30	30	29	28	29	24	25	26	27	27	26	25	25	25
Order XVI	**Bricks, pottery, glass cement, etc**	**7**	**8**	**8**	**8**	**9**	**9**	**9**	**9**	**9**	**6**	**7**	**7**	**7**	**8**	**8**	**8**	**8**	**8**
Order XVII (excluding MLH 474)	**Timber, furniture, etc**	**27**	**28**	**28**	**28**	**28**	**27**	**27**	**27**	**27**	**25**	**26**	**27**	**27**	**26**	**25**	**25**	**25**	**25**
Order XVIII	**Paper, printing and publishing**	**22**	**22**	**23**	**23**	**22**	**22**	**21**	**21**	**20**	**20**	**21**	**21**	**21**	**20**	**20**	**19**	**19**	**18**
MLH 481	Paper and board	56	56	56	55	55	55	54	54	53	52	52	52	51	51	50	50	50	49
Order XIX	**Other manufacturing industries**	**15**	**15**	**16**	**16**	**17**	**17**	**17**	**17**	**17**	**12**	**12**	**13**	**13**	**14**	**14**	**14**	**14**	**14**
MLH 491	Rubber	14	15	15	16	17	17	18	17	17	11	11	11	13	13	13	14	14	14
MLH 496	Plastics products nes	9	9	9	10	10	10	10	10	10	8	8	9	9	9	9	9	9	10
Orders III to XIX (excluding industries listed in note 5)	**Total manufacturing**	**23**	**23**	**24**	**24**	**24**	**24**	**25**	**25**	**25**	**18**	**19**	**19**	**19**	**19**	**19**	**20**	**20**	**20**

In the chemicals sector as a whole there has been some growth in import penetration since 1977 whilst the export share has changed little. The performance in synthetic resins exemplifies this overall picture.

Overseas trade in the products of many of the engineering industries is particularly boosted by imports which are subsequently exported ('re-exports') and this can distort ratios 1 and 3 excessively. Recent figures for office machinery demonstrate this vividly. Less affected by this problem are ratios 2 and 4. These give an impression of fairly rapid growth of imports in office machinery and in construction and mechanical handling equipment.

While exports of construction equipment continue to do well, however, there has been a decline in the proportion of sales of mechanical handling equipment being exported. Declining export performance is also a feature of machine tools. In 1978 trade in both directions in electrical machinery increased rapidly while exports of telecommunications equipment and electronic capital goods fell back. Some decrease in the penetration of broadcast receiving equipment imports was achieved.

Growth of import penetration of vehicles continued at a rapid rate in 1978 and in the case of the motor vehicles industry this was accompanied by a small fall in the export proportion.

Most industries in the textiles sector are experiencing a slow rise in import penetration while export shares remain steady or fall. In the clothing and footwear sector trade in both directions has generally held quite steady, as it has done for building materials and timber products. In the miscellaneous manufacturing industries there has been a slow fall in the proportion of manufacturers' sales of rubber products going to export.

Inquiries: Economic and Statistics Division 3B, Department of Industry, Dean Bradley House, Horseferry Road, London SW1P 2AG, tel. 01-212 6636.

per cent

Ratio 3 Exports/manufacturers' sales									Ratio 4 iExport manufacturers' sales plus imports								
12 months ended									12 months ended								
Sep 76	Dec 76	Mar 77	Jun 77	Sep 77	Dec 77	Mar 78	Jun 78	Sep 78	Sep 76	Dec 76	Mar 77	Jun 77	Sep 77	Dec 77	Mar 78	Jun 78	Sep 78
5	6	6	6	6	6	6	7	7	4	5	5	5	5	5	5	5	6
14	**14**	**15**	**14**	**14**	**14**	**13**	**13**	**13**	**12**	**12**	**13**	**13**	**12**	**12**	**11**	**11**	**12**
33	**34**	**34**	**35**	**36**	**37**	**37**	**38**	**37**	**27**	**28**	**28**	**28**	**29**	**30**	**30**	**30**	**30**
37	37	38	37	39	40	41	43	44	29	29	29	28	29	30	31	32	32
37	37	37	37	38	37	38	39	39	32	33	32	32	33	33	33	34	34
35	35	35	36	37	37	37	37	37	27	27	26	27	27	27	27	27	27
18	**18**	**18**	**19**	**19**	**20**	**19**	**19**	**19**	**14**	**14**	**15**	**15**	**16**	**16**	**16**	**15**	**15**
18	17	17	18	18	18	18	18	18	15	14	15	15	15	16	15	15	15
6	6	6	6	6	7	6	5	5	6	6	6	6	6	6	6	5	5
23	23	25	25	27	27	27	27	26	16	16	17	17	18	18	18	18	18
45	**45**	**45**	**45**	**45**	**45**	**45**	**45**	**45**	**36**	**36**	**36**	**36**	**36**	**36**	**36**	**36**	**36**
52	50	50	50	50	50	49	49	48	37	35	35	35	36	36	35	35	34
46	46	46	46	46	45	44	44	44	38	37	37	37	37	36	36	36	36
49	48	49	47	47	47	46	48	49	43	42	42	41	41	41	41	42	43
86	87	82	79	75	71	70	70	70	65	64	61	58	55	52	51	50	50
80	78	77	80	82	84	88	90	93	62	61	59	61	63	66	69	70	71
38	38	39	39	38	40	39	38	36	33	33	33	33	33	33	33	32	30
82	82	83	84	88	91	99	108	109	43	42	43	44	46	49	52	54	53
45	46	45	45	44	43	43	43	43	36	36	36	35	35	34	34	33	33
27	28	28	29	30	31	32	32	34	25	26	26	28	28	29	30	30	31
57	**56**	**56**	**56**	**55**	**56**	**55**	**55**	**55**	**38**	**37**	**37**	**36**	**36**	**37**	**36**	**36**	**36**
49	48	48	47	47	47	46	47	47	35	35	34	34	34	34	34	34	34
37	**37**	**38**	**38**	**39**	**40**	**40**	**40**	**39**	**29**	**28**	**29**	**28**	**29**	**30**	**30**	**30**	**30**
41	41	41	40	42	43	44	48	48	36	36	35	34	36	37	38	41	41
20	22	22	20	22	24	23	22	20	17	20	20	18	20	22	21	20	18
48	49	50	50	51	50	50	50	51	32	32	32	32	33	33	33	33	33
23	22	22	22	23	24	24	23	22	15	15	14	13	14	14	15	15	14
71	72	76	76	77	77	74	76	79	38	36	37	36	37	38	36	36	38
42	41	43	44	43	44	43	41	39	35	35	36	37	37	37	37	35	33
24	23	23	24	25	26	25	25	24	19	18	18	18	19	20	19	19	18
34	**34**	**32**	**34**	**34**	**36**	**36**	**36**	**38**	**22**	**24**	**21**	**23**	**23**	**23**	**23**	**22**	**23**
46	**46**	**45**	**46**	**46**	**47**	**48**	**48**	**49**	**37**	**36**	**35**	**35**	**35**	**35**	**36**	**36**	**36**
16	16	16	17	17	17	17	17	17	14	15	15	15	15	15	15	15	15
21	21	22	22	23	23	23	22	22	18	18	19	19	20	20	20	19	19
26	**26**	**28**	**28**	**29**	**29**	**29**	**29**	**29**	**20**	**21**	**22**	**22**	**23**	**23**	**23**	**22**	**22**
35	36	40	43	46	48	47	46	46	28	28	31	34	35	37	35	35	34
33	33	34	34	34	33	33	33	33	28	29	29	29	30	29	29	28	28
17	18	19	19	20	21	21	21	20	14	15	16	16	17	17	17	17	17
27	**27**	**27**	**27**	**27**	**27**	**27**	**27**	**27**	**21**	**21**	**21**	**20**	**20**	**20**	**20**	**20**	**20**
14	**15**	**16**	**17**	**18**	**19**	**19**	**19**	**19**	**11**	**12**	**13**	**13**	**14**	**15**	**15**	**15**	**15**
14	15	16	17	18	19	19	20	19	11	12	13	14	14	15	15	16	15
14	14	15	15	16	17	17	17	16	10	10	11	11	12	13	13	13	12
13	**13**	**14**	**15**	**15**	**15**	**15**	**15**	**15**	**12**	**13**	**13**	**14**	**14**	**14**	**14**	**14**	**14**
6	**6**	**7**	**7**	**8**	**8**	**8**	**8**	**8**	**4**	**5**	**5**	**5**	**6**	**6**	**6**	**6**	**6**
9	**10**	**10**	**11**	**11**	**11**	**11**	**11**	**11**	**8**	**8**	**8**	**8**	**9**	**9**	**9**	**9**	**9**
15	15	15	16	16	16	16	16	16	7	7	7	8	8	8	8	8	8
20	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**17**	**18**	**17**	**18**	**18**	**17**	**17**	**17**	**17**
28	28	27	27	27	26	25	25	25	25	25	24	24	24	22	22	22	21
7	8	8	8	8	8	9	9	9	7	7	7	7	8	8	8	8	8
24	**24**	**24**	**24**	**25**	**25**	**25**	**26**	**26**	**19**	**19**	**19**	**20**	**20**	**20**	**20**	**20**	**20**

Notes

[1] These ratios were introduced and their technical aspects discussed in an article on 'The home and export performance United Kingdom industries' in *Economic Trends* August 1977.

[2] The minimum list headings for which ratios are shown in the table are a selection approximating to the industries for which the sector working parties of the Industrial Strategy are responsible. Ratios for over a hundred minimum list headings of manufacturing industry are published in Business Monitor M12 'Import penetration and export sales ratios for manufacturing industry'. The September 1978 edition will shortly be available from HMSO, PO Box 569, London SE1 9NH.

[3] Fresh and frozen meat have now been excluded from the trade figures for MLH 214, reducing somewhat the ratios for this sector.

[4] Excludes gramophone records and tape recordings.

[5] The calculation of the ratios is inappropriate for some industries. In such cases and where suitable data are not available, the industry has been omitted. The industries concerned (which are thus excluded from the all manufacturing total) are: MLH 239 Other drink industries, 240 Tobacco, 342 Ordnance and small arms, 396 Jewellery and precious metals, 423 Textile finishing, 433 Fur and 474 Shop and office fitting.

Production statistics advisory committee

Eric Varley, Secretary of State for Industry, has set up a production statistics advisory committee under the Statistics of Trade Act 1947, to advise the Business Statistics Office on the annual censuses of production and other statistical inquiries into the production sector.

The following members have been appointed to the committee for a three-year term ending 31 December 1981:

R. Ash (chairman), Business Statistics Office; P. A. Bayliss, Association of Independent Businesses; Miss S. Carter, Central Statistical Office; C. A. Davies, Membrain Ltd; J. Hanna, Trades Union Congress; C. D. Hughes, Renold Ltd; R. A. Husain, National Economic Development Office; Miss D. Mills, Industrial Market Research Association; A. M. Millwood, John Laing Construction Ltd; Dr B. Mitchell, Business Statistics Office; W. A. Newsome, Association of British Chambers of Commerce; R. H. Price, Confederation of British Industry; G. F. Regan, Iron and Steel Statistics Bureau; J. D. Wells, Department of Industry; A. Wilson, Price Waterhouse and Co; and E. G. Wood, Sheffield City Polytechnic.

The joint secretaries of the committee are D. R. Lewis and G. M. Tann of the Business Statistics Office.

Addresses of ECGD offices

The Export Credits Guarantee Department (ECGD) is a government department providing export credit insurance for United Kingdom exporters and insurance against political risks for new investments overseas. Although credit insurance is its main service to exporters the department offers them a number of others. Firstly the bank guarantee scheme, enables exporters who are eligible to obtain export finance from their bank at a special low rate. Major projects carried out by British firms in overseas countries can be financed by the buyer credit technique which gives the exporter the bulk of his payment on shipment of the goods. Similar to this is the line of credit facility which extends the buyer credit principle to include contracts often with an individual value as low as £10,000. ECGD now insures 35 per cent of all UK exports. For full details of all ECGD services contact Publicity Branch, ECGD, Aldermanbury House, Aldermanbury, London EC2P 2EL, tel. 01-606 6699 ext. 258, telex 883601, or get in touch with one of the offices listed below.

Central London

London, EC1 to EC4, WC1 and 2, W1 and SW1.

B. M. Sidwell, Waverley House, 7–12 Noel Street, London W1V 3PB, tel. 01-437 2292 telex 24105.

South London

London SE, SW2–20 and W2–14, Kent, Surrey (excluding the administrative district of Spelthorne), East and West Sussex, Hampshire, the Isle of Wight and the Channel Isles.

J. M. Foster, 320 Purley Way, Croydon, Surrey CR9 4HL, tel. 01-686 9921 telex 946998.

North London

London N, NW, E, the southern parts of Essex, Hertfordshire and Buckinghamshire, the Slough, Burnham and Datchet area of Berkshire and the Spelthorne district of Surrey.

J. K. Sedman, 593-599 High Road, Tottenham, N17 6SW, tel. 01-808 4570 telex 263615.

Belfast

The six counties of Northern Ireland.

R. H. Forsyth, River House, High Street, Belfast, BT1 2BE, tel. 0232 31743 telex 74577.

Birmingham

Leicester, Nottinghamshire, Salop, Staffordshire, Warwickshire, West Midlands, the southern part of Derbyshire and that part of Hereford and Worcester formerly known as Worcestershire.

F. Wilmot, Colmore Centre, 115 Colmore Row, Birmingham B3 3SB, tel. 021-233 1771 telex 33132.

Bristol

Dyfed, Powys, Gwent, West, Mid and South Glamorgan, Gloucester, Avon, Wiltshire, Oxon, Dorset, Somerset, Devon and Cornwall. That part of Hereford and Worcester formerly known as Herefordshire, Berkshire except the Slough, Burnham and Datchet areas.

R. J. Stafford, 1 Redcliffe Street, Bristol BS1 6NP, tel. 0272 299971 telex 44248.

Cambridge

Bedfordshire, Cambridge, Norfolk, Northamptonshire and Suffolk, the northern parts of Essex, Hertfordshire and Buckinghamshire, and the southern part of Lincolnshire including the City of Lincoln.

R. Rand, Three Crowns House, 72–80 Hills Road, Cambridge CB2 1NJ, tel. 0223 68801 telex 81624.

Glasgow

Scotland and the Outer Isles.

D. W. Miller, Fleming House, 134 Renfrew Street, Glasgow G3 6T1, tel. 041-332 8707 telex 77130.

Leeds

Durham, Tyne and Wear, Northumberland, Cleveland, North, West and South Yorkshire, Humberside and the northern part of Lincolnshire.

W. Ford, West Riding House, 67 Albion Street, Leeds LS1 5AA, tel. 0532 450631 telex 55125.

Manchester

Gwynedd, Clwyd, Cheshire, Merseyside, Greater Manchester, Lancashire, Cumbria, the northern part of Derbyshire and Isle of Man.

R. H. K. Hughes, Elisabeth House, St. Peter's Square, Manchester M2 4AJ, tel. 061-228 3621 telex 667756.

United Kingdom trade in the fourth quarter and year 1978

Table 1 Total trade: value, volume and unit value indices

Seasonally adjusted except unit values. Balance of payments basis

	Exports fob	Imports fob	Visible balance	Unit value indices (not seasonally adjusted) Exports	Imports	Terms of trade [1]	Volume indices Exports	Imports	Relative volume index [2]
	£m	£m	£m	1975 = 100	1975 = 100	1975 = 100	1975 = 100	1975 = 100	1975 = 100
1970	8 121	8 163	−42	50.9	42.2	120.6	80.3	82.6	97.2
1971	9 060	8 799	+261	53.8	44.2	121.7	85.5	85.8	99.7
1972	9 450	10 172	−722	56.9	46.7	121.8	85.2	95.3	89.4
1973	12 115	14 498	−2 383	64.1	59.6	107.6	97.7	108.8	89.8
1974	16 538	21 773	−5 235	81.7	87.4	93.5	104.2	109.7	95.0
1975	19 463	22 699	−3 236	100.0	100.0	100.0	100.0	100.0	100.0
1976	25 411	29 012	−3 601	120.7	121.8	99.1	109.7	105.6	103.9
1977	32 148	33 892	−1 744	142.5	141.3	100.8	118.9	107.2	110.9
1978	35 432	36 607	−1 175	155.1	146.4	105.9	122.9	112.6	109.1
1976									
1st qtr	5 654	6 204	−550	110.6	110.1	100.5	106.2	100.2	106.0
2nd	6 160	7 109	−949	116.9	118.7	98.5	109.7	106.3	103.2
3rd	6 509	7 645	−1 136	123.9	124.7	99.4	110.1	108.5	101.5
4th	7 088	8 054	−966	131.5	133.9	98.2	113.0	107.4	105.2
1977									
1st qtr	7 520	8 466	−946	135.8	137.1	99.1	115.9	108.8	106.5
2nd	7 921	8 700	−779	141.5	140.7	100.6	117.7	110.6	106.4
3rd	8 531	8 534	−3	145.3	143.4	101.3	124.6	107.3	116.1
4th	8 176	8 192	−16	147.4	143.9	102.4	117.3	102.3	114.7
1978									
1st qtr	8 408	9 004	−596	149.6	141.5	105.7	119.6	113.5	105.4
2nd	8 753	8 926	−173	153.2	146.0	104.9	122.2	109.7	111.4
3rd	9 051	9 418	−367	157.0	148.0	106.1	124.8	114.9	108.6
4th	9 220	9 259	−39	160.6	150.3	106.9	124.8	112.3	111.1
Percentage change									
Q4/Q3	+2	−1½		+2½	+1½	+1	—	−2½	+2½
1978/77	+10	+8		+9	+3½	+5	+3½	+5	−1½

[1] Export unit value index as percentage of import unit value index. [2] Export Volume Index as percentage of the import volume index.

Table 2 Value and volume of exports and imports excluding the more erratic items [1]

Seasonally adjusted. Balance of payments basis

	Exports fob Value	Exports fob Volume index	Imports fob Value	Imports fob Volume index	Relative volume index
	£m	1975 = 100	£m	1975 = 100	1975 = 100
1975	18 111	100.0	20 959	100.0	100.0
1976	23 413	108.9	27 110	106.8	102.0
1977	29 554	117.9	31 239	107.4	109.8
1978	32 855	124.2	34 352	115.8	107.3
1976					
1st qtr	5 254	106.1	5 875	102.8	103.2
2nd	5 624	107.9	6 497	105.2	102.6
3rd	6 009	109.4	7 107	109.2	100.2
4th	6 526	112.0	7 631	110.2	101.6
1977					
1st qtr	6 964	115.4	7 930	110.5	104.4
2nd	7 307	117.2	7 771	106.4	110.2
3rd	7 769	122.5	7 952	108.9	112.5
4th	7 514	116.7	7 586	103.7	112.5
1978					
1st qtr	7 839	120.8	8 387	115.9	104.2
2nd	7 947	121.7	8 315	111.8	108.9
3rd	8 493	127.3	8 822	118.3	107.6
4th	8 576	126.8	8 828	117.4	108.0
Percentage change					
Q4/Q3	+1	−½	—	−1	+½
1978/77	+11	+5½	+10	+8	−2½

[1] These are defined as ships, North Sea production installations, aircraft and precious stones.

Table 3 Trade in oil

Seasonally adjusted. Balance of payment basis

£ million

	Balance of visible trade	Exports Total	Exports Crude oil [1]	Exports Rest of division	Imports Total	Imports Crude oil			Imports Rest of Division
	£m fob	£m fob	£m fob	£m fob	£m fob	£m fob	Million tonnes	Average value per tonne £ fob	£m fob
1970	−486	180	8	172	666	470	100.8	4.7	196
1971	−653	216	10	206	869	664	107.3	6.2	205
1972	−660	222	21	201	882	667	104.3	6.4	215
1973	−948	344	23	321	1 292	941	113.3	8.3	351
1974	−3 425	711	29	682	4 136	3 348	110.8	30.2	788
1975	−3 111	731	30	701	3 842	3 069	86.9	35.3	773
1976	−3 973	1 172	178	994	5 145	4 089	87.0	47.0	1 056
1977	−2 791	1 979	915	1 064	4 770	3 685	68.6	53.8	1 085
1978	−2 015	2 235	1 240	995	4 250	3 285	65.9	49.8	965
1976									
1st qtr	−947	221	18	203	1 168	925	21.8	42.7	243
2nd	−968	266	24	242	1 234	962	21.1	45.8	272
3rd	−1 058	307	45	262	1 365	1 080	22.2	48.8	285
4th	−1 000	378	91	287	1 378	1 122	21.9	51.1	256
1977									
1st qtr	−781	464	163	301	1 245	991	18.9	53.0	254
2nd	−761	514	242	272	1 275	1 000	18.3	54.4	275
3rd	−590	568	309	259	1 158	880	16.2	54.3	278
4th	−659	433	201	232	1 092	814	15.2	53.4	278
1978									
1st qtr	−620	480	273	207	1 100	848	16.9	50.0	252
2nd	−414	550	312	238	964	742	14.2	52.0	222
3rd	−501	617	341	276	1 118	884	17.8	50.1	234
4th	−480	588	314	274	1 068	811	17.0	47.6	257
Percentage change									
Q4/Q3		−4½	−8	−½	−4½	−8½	−4½	−5	+10
1978/77		+13	+36	−6½	−11	−11	−4	−7½	−11

[1] Not seasonally adjusted.

Section 1: Recent movements in visible trade: balance of payments basis

TOTAL TRADE AND OIL (tables 1 to 3)
Fourth quarter of 1978

In the fourth quarter of 1978 there was a visible trade deficit of £39 million, compared with a deficit of £367 million in the previous quarter. This improvement of £328 million was largely accounted for by a favourable swing of £250 million in the balance on the more erratic items of trade, particularly precious stones. The direct effect of the industrial action involving Ford last autumn is estimated to have adversely affected the change in the visible balance, possibly of the order of £70 million.

Total exports were valued at £9,220 million, 2 per cent (£169 million) above the third-quarter level, reflecting an increase of £86 million in shipments of the more erratic items (mainly precious stones) and higher exports of manufactures (excluding erratics). The value of imports was £9,259 million, 1½ per cent (£159 million) below the high third-quarter level, reflecting a fall of £164 million in arrivals of the more erratic items (particularly ships and precious stones). The industrial action involving Ford last autumn is estimated to have depressed the level of both exports and

imports in the fourth quarter, by arround £130 million and £60 million respectively.

The improvement in the visible balance between the third and fourth quarters was mainly attributable to an increase of 2½ per cent in relative volume, with export volume unchanged and import volume falling by 2½ per cent. Excluding the more erratic items, there was a marginal fall in relative volume, reflecting a small fall in export volume while import volume was unchanged. These movements are from high third-quarter levels, disguising an underlying increase in both exports and imports, with imports growing at the faster rate.

In the fourth quarter, the deficit on trade in petroleum and petroleum products was reduced marginally to £480 million. Exports fell by 4½ per cent to £588 million, mainly reflecting a somewhat low level of shipments in December, while imports fell by a similar percentage to £1,068 million, from an erratically high third-quarter level. Exports of crude oil in the fourth quarter were valued at £314 million, 8 per cent below the record level of the previous quarter, while there was little change in shipments of petroleum products. Imports of crude oil fell by 8½ per cent in value and 4½ per cent in volume from high third-quarter levels, with a further fall in price. Arrivals of petroleum products increased by 10 per cent to £257 million.

In the fourth quarter, the export unit value index increased by 2½ per cent and the import unit value index rose by 1½ per cent, resulting in a further increase, of 1 per cent, in the terms of trade.

Year 1978

In 1978 as a whole, the deficit on visible trade was £1,175 million, a reduction of £569 million compared with 1977. This improvement was more than accounted for by a fall of £776 million in the deficit on trade in oil. Total exports were valued at £35,432 million, 10 per cent (£3,284 million) above the 1977 level, while imports, at £36,607 million, rose by 8 per cent (£2,715 million).

The volume of exports rose by 3½ per cent in 1978, with the 2 per cent increase in manufactured exports probably sufficient to at least maintain the higher UK share of the value of world trade in manufactures captured in 1977. Import volume increased by 5 per cent, with manufactured goods – up 15 per cent – on a sharply rising trend during the year reflecting the expansion of the domestic economy.

With North Sea oil production continuing to increase, the UK deficit on trade in oil was reduced by £776 million to £2,015 million, one half of the record 1976 level. Two-thirds of the improvement was attributable to lower imports, which fell 11 per cent to £4,250 million, while the remainder was due to a 13 per cent increase in exports to £2,235 million. Imports of crude oil fell 11 per cent to £3,285 million between 1977 and 1978, with tonnage down 4 per cent and price 7½ per cent lower, reflecting the appreciation of sterling against the US dollar. Exports of crude oil rose 36 per cent to £1,240 million.

In 1978 the export and import unit value indices both rose rather less than they have in the recent past. Export prices were up by 9 per cent and import prices by 3½ per cent leading to a sharp increase of 5 per cent in the terms of trade.

AREA ANALYSIS (see table 4)

Fourth quarter of 1978

In the fourth quarter of 1978, although Britain's visible trade deficit with the EEC increased by £59 million to £562 million, it was still below the levels recorded in the first half of the year. There was an improvement of £101 million in the visible balance with the rest of western Europe, with the deficit reduced from an erratically high third-quarter level to £110 million in the fourth quarter,

The visible trade deficit with north America worsened by £22 million to £172 million in the fourth quarter, but remained well below the levels recorded in the first two quarters. There was a further erratic swing in the trade balance with other developed countries in the fourth quarter, from a deficit of £101 million to a small surplus of £11 million.

In the fourth quarter there was an increase of £48 million in the UK surplus with oil exporting countries, to £396 million, with imports falling more than exports. The visible balance with the rest of the world improved by £119 million to a surplus of £319 million, more than offsetting the reduction in the previous quarter.

Year 1978

In 1978 as a whole there was a deficit of £2,247 million on our trade with the EEC, a deterioration of £514 million from 1977, although the export/import ratio is not much below the level in that year. There was a deficit of £536 million

Table 4 Trade by area

Seasonally adjusted. Balance of payments basis — £ million

	EEC			Rest of W. Europe			North America			Other developed countries		
	Exports	Imports	Visible balance	Exports	Imports	Visible balance	Exports	Imports	Visible balance	Exports	Imports	Visible balance
1970	2 347	2 308	+39	1 392	1 217	+175	1 221	1 709	−488	975	828	+147
1971	2 511	2 702	−191	1 519	1 404	+115	1 416	1 591	−175	1 077	856	+221
1972	2 835	3 426	−591	1 604	1 645	−41	1 553	1 635	−82	931	1 088	−157
1973	3 944	5 135	−1 191	2 055	2 338	−283	1 872	2 155	−283	1 208	1 416	−208
1974	5 581	7 623	−2 042	2 755	3 113	−358	2 260	2 963	−703	1 721	1 623	+98
1975	6 273	8 685	−2 412	3 086	3 157	−71	2 297	2 959	−662	1 847	1 862	−15
1976	9 052	11 179	−2 127	3 996	3 998	−2	3 043	3 869	−826	1 943	1 930	+13
1977	11 878	13 611	−1 733	4 848	4 623	+225	3 751	4 510	−759	2 095	2 484	−389
1978	13 675	15 922	−2 247	4 542	5 078	−536	4 157	4 938	−781	2 311	2 557	−246
1976												
1st qtr	1 951	2 364	−413	826	841	−15	676	792	−116	485	430	+55
2nd	2 216	2 851	−635	985	987	−2	754	952	−198	479	433	+46
3rd	2 313	2 808	−495	1 047	1 124	−77	795	1 037	−242	495	495	—
4th	2 572	3 156	−584	1 138	1 046	+92	818	1 088	−270	484	572	−88
1977												
1st qtr	2 795	3 270	−475	1 220	1 128	+92	882	1 128	−246	520	622	−102
2nd	2 991	3 354	−363	1 180	1 332	−152	927	1 183	−256	525	652	−127
3rd	3 066	3 504	−438	1 316	1 072	+244	1 033	1 183	−150	536	586	−50
4th	3 026	3 483	−457	1 132	1 091	+41	909	1 016	−107	514	624	−110
1978												
1st qtr	3 182	3 765	−583	1 082	1 169	−87	990	1 205	−215	538	704	−166
2nd	3 382	3 981	−599	1 176	1 304	−128	1 032	1 276	−244	574	564	+10
3rd	3 508	4 011	−503	1 113	1 324	−211	1 060	1 210	−150	583	684	−101
4th	3 603	4 165	−562	1 171	1 281	−110	1 075	1 247	−172	616	605	+11
Percentage change												
Q4/Q3	+2½	+4		+5	−3		+1½	+3		+5½	−12	
1978/77	+15	+17		−6½	+10		+11	+9½		+10	+3	

Table 4 *continued* — £ million

	Oil exporting countries			Rest of world			Total – all areas		
	Exports	Imports	Visible balance	Exports	Imports	Visible balance	Exports	Imports	Visible balance
1970	474	588	−114	1 712	1 513	+199	8 121	8 163	−42
1971	580	768	−188	1 957	1 478	+479	9 060	8 799	+261
1972	638	769	−131	1 889	1 609	+280	9 450	10 172	−722
1973	790	1 120	−330	2 246	2 334	−88	12 115	14 498	−2 383
1974	1 224	3 441	−2 217	2 997	3 010	−13	16 538	21 773	−5 235
1975	2 267	2 981	−714	3 693	3 055	+638	19 463	22 699	−3 236
1976	3 158	3 867	−709	4 219	4 169	+50	25 411	29 012	−3 601
1977	4 315	3 430	+885	5 261	5 234	+27	32 148	33 892	−1 744
1978	4 633	3 056	+1 578	6 114	5 057	+1 057	35 432	36 607	−1 175
1976									
1st qtr	693	840	−147	1 020	905	+115	5 654	6 204	−550
2nd	748	910	−162	1 023	1 046	−23	6 160	7 109	−949
3rd	795	1 075	−280	1 042	1 058	−16	6 509	7 645	−1 136
4th	922	1 042	−120	1 134	1 160	−26	7 088	8 054	−966
1977									
1st qtr	990	910	+80	1 133	1 316	−183	7 520	8 466	−946
2nd	1 053	946	+107	1 289	1 292	−3	7 921	8 700	−779
3rd	1 130	831	+299	1 390	1 329	+61	8 531	8 534	−3
4th	1 142	743	+399	1 449	1 297	+152	8 176	8 192	−16
1978									
1st qtr	1 150	807	+343	1 487	1 226	+261	8 408	9 004	−596
2nd	1 195	704	+491	1 443	1 166	+277	8 753	8 926	−173
3rd	1 172	824	+348	1 549	1 349	+200	9 051	9 418	−367
4th	1 116	720	+396	1 635	1 316	+319	9 220	9 259	−39
Percentage change									
Q4/Q3	−5	−13		+5½	−2½		+2	−1½	
1978/77	+7½	−11		+16	−3½		+10	+8	

in the balance with the rest of western Europe, a marked turnround from the surplus of £225 million recorded in 1977, which reflects a fall in exports resulting from generally weak demand in this market, while imports have continued to increase.

Britain's trading position with north America was little changed in 1978, with the deficit increasing by £22 million to £781 million. There was an improvement in our trade balance with other developed countries, with the unusually high 1977 deficit reduced by £143 million to £246 million. Imports rose only slowly following the sharp increase in 1977.

Exports to oil-exporting countries continued to increase in 1978 although at a markedly slower rate than in previous years, while imports continued to fall. These movements led to a large increase, of £693 million, in the surplus to £1,578 million, a substantial turnround from the deficit of £2,217 million recorded in 1974.

There was a massive improvement of £1,030 million in the trade balance with the rest of the world, from a small surplus to one of £1,057 million, reflecting a 16 per cent increase in exports while imports were 3½ per cent lower.

Section 2: Recent movements in exports and imports: Overseas Trade Statistics basis

EXPORTS BY AREA

see tables 6 and 7

Fourth quarter 1978

In the fourth quarter of 1978, exports rose by 3 per cent to £9,830 million, seasonally adjusted, on an Overseas Trade Statistics basis. Deliveries to the developed countries increased by 4 per cent to £6,990 million, while exports to the developing countries at £2,505 million were unchanged.

The value of exports to the EEC rose by 3 per cent to £3,722 milllion continuing the steady growth during 1978. Exports to West Germany rose 1½ per cent reflecting increased deliveries of manufactures partly offset by reductions in exports of fuels, food and live animals. Shipments to Belgium and Luxembourg were up by 1 per cent with a sharp increase in precious stones being partly offset by falls in fuels and road vehicles. Deliveries to Denmark rose by 11 per cent (the largest increase amongst the community countries) a recovery from the fall-back during the earlier part of 1978 with increases in most commodities. Shipments to France, the Irish Republic and Italy rose by 2 per cent, 4 per cent and 6 per cent respectively, the increases being well spread amongst the commodities but mainly in manufactured goods. Deliveries to the Netherlands fell marginally mainly due to lower shipments of non-manufactured goods.

Exports to the rest of western Europe were up by 7½ per cent to £1,544 million. Following the fall back in the second quarter exports to Finland recovered in the fourth quarter with a rise of 25 per cent mainly due to a large increase in oil deliveries. Exports to Switzerland rose by 16 per cent mainly due to trade in precious stones. Deliveries to Spain and Sweden rose by 8 per cent and 6 per cent, respectively, reflecting increases in exports of manufactured goods. Conversely shipments to Norway continued to fall, by 8½ per cent in the latest period due to reductions in deliveries of machinery and transport equipment.

Exports to north America rose by 2½ per cent to a value of £1,104 million, with deliveries to the United States up by 2½ per cent reflecting slow growth in most commodities. Exports to Canada were up by 3½ per cent again fairly well spread.

Shipments to the other developed countries, as a group, rose by 5½ per cent to a value of £619 million. Deliveries to Australia improved by 11 per cent mainly due to large increases in exports on ships and boats and of machinery and road vehicles. Exports to New Zealand and South Africa rose by 6½ per cent and 5 per cent respectively, with the former increase resulting from improvements in semi-manufactures particularly textiles and metals and the latter from increased deliveries in most commodities. Shipments to Japan rose by 3 per cent including higher deliveries of semi-manufactures.

UK deliveries to the developing countries at £2,505 million were unchanged in the fourth quarter. Within this group, shipments to the oil-exporting countries, at £1,165 million, were down by 3 per cent, continuing the falling trend since the high second quarter. Exports to Saudi Arabia rose by 14 per cent due to

Table 5 Derivation of visible trade figures

Seasonally adjusted — £ million

	Exports			Imports				
	Overseas Trade Statistics basis fob	Valuation and coverage adjustments	Balance of payments basis fob	Overseas Trade Statistics basis cif	Freight insurance and other valuation adjustments	Coverage adjustments	Balance of payments basis fob	Visible balance
1970	8 170	−49	8 121	9 163	−884	−116	8 163	−42
1971	9 289	−229	9 060	9 980	−979	−202	8 799	+261
1972	9 906	−456	9 450	11 301	−1 012	−117	10 172	−722
1973	12 657	−542	12 115	16 067	−1 326	−243	14 498	−2 383
1974	16 910	−372	16 538	23 513	−1 564	−176	21 773	−5 235
1975	20 198	−735	19 463	24 431	−1 478	−254	22 699	−3 236
1976	26 162	−751	25 411	31 584	−1 941	−631	29 012	−3 601
1977	33 331	−1 183	32 148	36 978	−2 089	−997	33 892	−1 744
1978	37 363	−1 931	35 432	40 969	−2 202	−2 160	36 607	−1 175
1976								
1st qtr	5 818	−164	5 654	6 767	−421	−142	6 204	−550
2nd	6 337	−177	6 160	7 757	−482	−166	7 109	−949
3rd	6 652	−143	6 509	8 211	−516	−50	7 645	−1 136
4th	7 355	−267	7 088	8 849	−522	−273	8 054	−966
1977								
1st qtr	7 755	−235	7 520	9 144	−556	−122	8 466	−946
2nd	8 288	−367	7 921	9 609	−573	−336	8 700	−779
3rd	8 803	−272	8 531	9 243	−507	−202	8 534	−3
4th	8 485	−309	8 176	8 982	−453	−337	8 192	−16
1978								
1st qtr	8 881	−473	8 408	9 846	−523	−319	9 004	−596
2nd	9 107	−354	8 753	10 221	−543	−752	8 926	−173
3rd	9 545	−494	9 051	10 475	−582	−475	9 418	−367
4th	9 830	−610	9 220	10 427	−554	−614	9 259	−39
Percentage change								
Q4/Q3	+3		+2	−½			−1½	
1978/77	+12		+10	+11			+8	

Table 6 Exports by area (summary)

Seasonally adjusted values. Overseas Trade Statistics basis — £ million fob

		Developed countries					Developing countries			
	Total	Total	EEC	Rest of W. Europe	North America	Other	Total	Oil exporting countries	Other	Centrally planned economies
1970	8 170	5 981	2 406	1 373	1 242	961	1 843	472	1 371	308
1971	9 289	6 752	2 722	1 520	1 447	1 064	2 218	585	1 633	285
1972	9 906	7 329	2 999	1 769	1 610	950	2 228	650	1 578	320
1973	12 657	9 572	4 106	2 293	1 954	1 220	2 628	809	1 819	413
1974	16 910	12 632	5 618	2 989	2 308	1 717	3 696	1 233	2 463	522
1975	20 198	14 191	6 510	3 394	2 391	1 896	5 279	2 296	2 983	670
1976	26 162	18 714	9 305	4 314	3 121	1 975	6 662	3 229	3 433	731
1977	33 331	23 688	12 152	5 606	3 821	2 110	8 636	4 374	4 261	911
1978	37 363	26 392	14 103	5 710	4 245	2 334	9 800	4 767	5 033	1 070
1976										
1st qtr	5 818	4 099	1 997	912	694	497	1 522	704	818	181
2nd	6 337	4 595	2 275	1 057	777	485	1 590	755	835	184
3rd	6 652	4 787	2 383	1 094	812	499	1 649	802	848	179
4th	7 355	5 233	2 650	1 251	838	494	1 901	969	932	187
1977										
1st qtr	7 755	5 611	2 862	1 318	907	525	1 935	1 025	911	205
2nd	8 288	5 948	3 044	1 434	944	527	2 122	1 067	1 055	239
3rd	8 803	6 238	3 139	1 505	1 054	539	2 229	1 141	1 087	252
4th	8 485	5 891	3 107	1 349	916	519	2 350	1 141	1 208	214
1978										
1st qtr	8 881	6 210	3 290	1 363	1 012	545	2 382	1 180	1 202	286
2nd	9 107	6 474	3 479	1 363	1 050	582	2 412	1 223	1 189	244
3rd	9 545	6 719	3 612	1 440	1 080	587	2 502	1 200	1 302	235
4th	9 830	6 990	3 722	1 544	1 104	619	2 505	1 165	1 340	305
Percentage change										
Q4/Q3	+3	+4	+3	+7½	+2½	+5½	—	−3	+3	+30
1978/77	+12	+11	+16	+2	+11	+11	+13	+9	+18	+18

increases in machinery and transport equipment. Shipments to Iran increased by 4½ per cent mainly reflecting a rise in exports of transport equipment outweighing a fall in exports of metals. Deliveries to Nigeria, however, continued to fall back and were 19 per cent below the previous quarter. This fall which took the level back to that in the first quarter 1977 reflected a reduction in most commodities, particularly manufactures with the exception of road vehicles. Shipments to India increased by 18 per cent with a doubling of deliveries of metals the most noticeable increase; there was a slight decrease in precious stones following the high level of the third quarter. Deliveries to Israel decreased by 19 per cent; the largest falls were in deliveries of road vehicles and chemicals. Deliveries to Brazil were also down in this quarter, by 4½ per cent, despite increased deliveries of machinery.

Exports to the centrally-planned economies increased by 30 per cent to £305 million in the fourth quarter of 1978. There were larger deliveries of food and live animals, metals and finished manufactures. Among this group of countries, shipments to the Soviet Union rose by 45 per cent following falls earlier in the year. Increased deliveries of metals and finished manufactures played a major part in this rise. Similarly, deliveries to Poland reached a peak in the final quarter rising by 18 per cent. A recovery in exports of food and live animals, after a fall in the previous quarter was a major factor.

Year 1978

In 1978 as a whole, the value of exports was £37,363 million, on an Overseas Trade Statistics basis, 12 per cent higher than in 1977.

By area, UK exports to the EEC rose by 16 per cent to £14,103 million, with increases to all the EEC countries. Exports to the Irish Republic and West Germany rose by 24 per cent and 23 per cent respectively. Along with increases in manufactured goods, there were greater deliveries of food and live animals and of fuels to the Irish Republic, and of dairy produce and eggs to West Germany. Shipments to Belgium and Luxembourg rose 19 per cent in 1978 with increases in all major commodities, particularly a 43 per cent rise in

Table 7 Exports by area (detail)

Seasonally adjusted values. Overseas Trade Statistics basis

£ million fob

	1977	1978					Percentage change	
	Year	Year	1st qtr	2nd qtr	3rd qtr	4th qtr	Q4/Q3	1978/77
Developed countries	23 688	26 392	6 210	6 474	6 719	6 990	+4	+11
EEC	12 152	14 103	3 290	3 479	3 612	3 722	+3	+16
Belgium and Luxembourg	1 843	2 202	534	561	551	556	+1	+19
Denmark	804	841	211	205	201	224	+11	+4½
France	2 166	2 530	587	612	659	672	+2	+17
Irish Republic	1 648	2 045	460	511	526	548	+4	+24
Italy	987	1 124	267	272	284	301	+6	+14
Netherlands	2 178	2 256	499	549	606	602	−½	+3½
West Germany	2 526	3 105	711	744	818	831	+1½	+23
Rest of W. Europe	5 606	5 710	1 363	1 363	1 440	1 544	+7½	+2
Finland	347	349	91	86	77	96	+25	+½
Norway	777	650	171	174	159	146	−8½	−16
Spain	471	472	101	111	125	135	+8	—
Sweden	1 201	1 171	279	280	297	315	+6	−2½
Switzerland	1 435	1 914	440	444	477	552	+16	+33
North America	3 821	4 245	1 012	1 050	1 080	1 104	+2½	+11
United States	3 095	3 477	827	859	886	906	+2½	+12
Canada	702	741	179	184	185	192	+3½	+5½
Other	2 110	2 334	545	582	587	619	+5½	+11
Australia	763	856	193	213	213	236	+11	+12
Japan	471	542	123	128	144	148	+3	+15
New Zealand	290	268	69	61	67	71	+6½	−7½
South Africa	586	667	159	174	163	171	+5	+14
Developing countries	8 636	9 800	2 382	2 412	2 502	2 505	—	+13
Latin America	984	951	239	234	247	231	−6½	−3½
Brazil	256	221	56	63	52	50	−4½	−13
Middle East and north Africa	3 869	4 274	1 049	1 055	1 067	1 103	+3½	+10
Iran	659	751	184	185	187	195	+4½	+14
Israel	276	244	66	61	64	52	−19	−12
Saudi Arabia	601	786	186	188	193	219	+14	+31
Rest	3 783	4 576	1 094	1 123	1 188	1 171	−1½	+21
India	278	349	81	68	91	108	+18	+25
Nigeria	1 079	1 133	289	320	289	236	−19	+5
Centrally planned economies	911	1 070	286	244	235	305	+30	+18
Poland	201	266	60	68	63	75	+18	+33
Soviet Union	348	423	128	100	80	116	+45	+22
Total	33 331	37 363	8 881	9 107	9 545	9 830	+3	+12
of which								
Oil exporting countries	4 374	4 767	1 180	1 223	1 200	1 165	−3	+9

Table 8 Exports by commodity (summary) [1]

Seasonally adjusted values. Overseas Trade Statistics basis

£ million fob

					Manufactures [2]									
						Machinery and transport equipment [2]								
	Total	Food, beverages and tobacco	Basic materials	Fuels	Total	Total	Machinery	Road vehicles	Other transport equipment [1] [2]	Chemicals	Metals	Textiles	Other manufactures	Miscellaneous
SITC (Rev 2)		0 + 1	2 + 4	3	5-8	7	71-77	78	79	5	67-69	65	Rest of 6 + 8	9
1970	8 170	514	265	210	6 901	3 411	2 236	874	302	775	962	418	1 335	280
1971	9 289	588	277	239	7 922	4 007	2 624	1 036	348	873	1 007	444	1 591	263
1972	9 906	660	319	242	8 401	4 206	2 753	971	482	951	1 018	468	1 759	285
1973	12 657	876	422	374	10 613	4 981	3 270	1 169	542	1 257	1 313	629	2 433	373
1974	16 910	1 063	582	782	13 878	6 322	4 256	1 398	669	2 113	1 718	774	2 951	605
1975	20 198	1 428	560	827	16 625	8 431	5 782	1 854	795	2 145	1 849	729	3 471	760
1976	26 162	1 692	779	1 265	21 572	10 383	6 994	2 377	1 012	3 007	2 362	972	4 849	854
1977	33 331	2 216	954	2 092	27 113	12 688	8 332	2 872	1 484	3 817	2 877	1 193	6 537	956
1978	37 363	2 912	1 008	2 375	29 984	13 762	9 223	3 070	1 470	4 201	3 114	1 238	7 669	1 083
1976														
1st qtr	5 818	393	159	244	4 800	2 373	1 639	542	192	655	489	209	1 067	210
2nd	6 337	409	186	290	5 250	2 573	1 707	588	278	725	570	231	1 183	205
3rd	6 652	423	200	327	5 515	2 562	1 737	604	221	781	638	252	1 218	218
4th	7 355	469	234	403	6 007	2 874	1 910	644	320	846	665	280	1 381	220
1977														
1st qtr	7 755	498	245	493	6 295	2 867	1 930	665	272	882	705	298	1 533	222
2nd	8 288	541	233	544	6 735	3 097	2 061	714	322	941	745	296	1 671	249
3rd	8 803	594	246	596	7 135	3 403	2 134	735	534	1 022	733	308	1 627	236
4th	8 485	584	231	460	6 947	3 321	2 207	758	356	972	695	293	1 706	248
1978														
1st qtr	8 881	698	221	512	7 212	3 321	2 197	759	366	985	744	305	1 820	238
2nd	9 107	726	252	585	7 307	3 439	2 262	796	381	1 030	749	296	1 817	268
3rd	9 545	746	261	652	7 603	3 465	2 354	766	345	1 068	778	310	1 944	263
4th	9 830	743	273	626	7 862	3 537	2 410	749	378	1 118	843	326	2 088	315
Percentage change														
Q4/Q3	+3	−½	+4½	−4	+3½	+2	+2½	−2	+9½	+5	+8½	+5½	+7½	+20
1978/77	+12	+31	+5½	+14	+11	+8½	+11	+7	−1	+10	+8	+3½	+17	+13

[1] Not seasonally adjusted. [2] Includes North Sea installations.

deliveries of food and live animals mainly due to a four-fold increase in dairy produce and eggs. Deliveries to Italy rose 14 per cent and to France 17 per cent with increases in most of the commodities.

Exports to the Netherlands rose by 3½ per cent despite falls in deliveries of basic materials, fuels and machinery and transport equipment. Shipments to Denmark increased by 4½ per cent with increases in non-manufactures offsetting the fall in manufactured goods.

In 1978 exports to the rest of western Europe rose 2 per cent to £5,710 million. Deliveries to Switzerland increased by 33 per cent mainly due to higher exports of precious stones. Exports to Spain were unchanged in value with lower shipments of metals and of food and live animals being compensated for by gains in other commodities. Shipments to Norway were lower in 1978 by 16 per cent reflecting delivery of oil rigs in 1977 which was partly compensated for by higher deliveries of petroleum and petroleum products (see also note 1 of table 14).

Shipments to north America were 11 per cent up at £1,104 million. Exports to the United States rose by 12 per cent with higher shipments of machinery particularly power generating machinery offsetting lower deliveries of fuels. Most of the 3½ per cent increase to Canada was in manufactures, with increased shipments of specialised machinery, and road vehicles.

The value of exports to the other developed countries rose by 11 per cent in 1978 to £2,334 million, gains being made to each country with the exception of New Zealand, where there was a 7½ per cent fall mainly due to lower deliveries of machinery and transport equipment. Exports to Japan were up by 15 per cent with widespread rises among the commodity groups, including a 21 per cent increase in whisky deliveries, while shipments to South Africa (up 14 per cent) and to Australia (up 12 per cent) included increased deliveries of road vehicles.

Within the developing countries, deliveries

Table 9 Exports by commodity (detail)

Seasonally adjusted values. Overseas Trade Statistics basis

£ million fob

	1977	1978					Percentage change	
	Year	Year	1st qtr	2nd qtr	3rd qtr	4th qtr	Q4/Q3	1978/77
Food, beverages and tobacco	2 216	2 912	698	726	746	743	−½	+31
Food and live animals	1 417	1 828	472	469	459	427	−7	+29
Beverages and tobacco	799	1 084	226	256	286	316	+10	+36
Beverages	629	805	179	199	210	217	+3½	+28
Basic materials	954	1 008	221	252	261	273	+4½	+5½
Crude materials	897	951	210	238	244	259	+6	+6
Textile fibres	289	282	57	68	74	84	+13	+5
Fuels	2 092	2 375	512	585	652	626	−4	+14
Manufactures	27 113	29 984	7 212	7 307	7 603	7 862	+3½	+11
Machinery and transport equipment	12 688	13 762	3 321	3 439	3 465	3 537	+2	+8½
Machinery	8 332	9 223	2 197	2 262	2 354	2 410	+2½	+11
Power generating machinery	1 526	1 769	417	436	473	443	−6	+16
Specialised machinery	2 036	2 169	549	544	536	541	+1	+6½
Metal working machinery	325	386	90	91	102	103	+1½	+19
General industrial machinery	1 641	1 839	445	454	462	478	+3½	+12
Office machinery	760	919	193	209	240	277	+16	+21
Telecommunications equipment, etc	712	742	182	190	186	183	−1½	+4
Other electrical machinery	1 332	1 400	339	350	354	357	+1	+5
Road vehicles	2 872	3 070	759	796	766	749	−2	+7
Other transport equipment [1]	1 484	1 470	366	381	345	378	+9½	−1
Chemicals	3 817	4 201	985	1 030	1 068	1 118	+5	+10
Organic chemicals	831	914	221	218	228	246	+8	+10
Inorganic chemicals	523	561	123	136	139	162	+16	+7
Medicinal and pharmaceutical products	554	655	159	165	164	167	+1½	+18
Plastics	618	648	153	159	160	175	+9½	+5
Metals	2 877	3 114	744	749	778	843	+8½	+8
Iron and steel	1 017	1 106	251	267	272	315	+16	+8½
Non-ferrous metals	816	835	203	187	199	246	+23	+2½
Miscellaneous metal manufactures	1 044	1 174	285	291	294	303	+3	+12
Textiles	1 193	1 238	305	296	310	326	+5½	+3½
Other	6 537	7 669	1 820	1 817	1 944	2 088	+7½	+17
Clothing and footwear	701	768	190	191	193	195	+1	+9½
Instruments	925	1 100	249	266	280	305	+9	+19
Miscellaneous	956	1 083	238	268	263	315	+20	+13
Total	33 331	37 363	8 881	9 107	9 545	9 830	+3	+12

[1] Not seasonally adjusted.

Table 10 Exports by commodity: volume indices

Seasonally adjusted. Overseas Trade Statistics basis

Indices 1975 = 100

					Manufactures [1]							
						Machinery and transport equipment [1] [2]						
	Total	Food, beverages and tobacco	Basic materials	Fuels	Total	Total	Machinery	Road vehicles	Chemicals	Metals	Textiles	Other manufactures
SITC (Rev 2)		0+1	2+4	3	5-8	7	71-77	78	5	67-69	65	Rest of 6+8
Weights	1 000	71	28	41	823	417	286	92	106	92	36	172
1970	77.8	65	92	110	77	75	73	84	73	97	96	71
1971	84.5	71	92	110	85	83	81	90	80	104	101	81
1972	86.1	74	100	112	86	82	80	81	85	105	107	84
1973	98.1	88	106	117	99	91	89	90	103	120	124	98
1974	102.7	91	111	109	103	95	95	94	122	112	118	104
1975	100.0	100	100	100	100	100	100	100	100	100	100	100
1976	108.7	103	117	120	109	101	99	104	124	109	117	116
1977	118.7	111	126	165	118	106	102	105	141	116	120	134
1978	124.0	132	134	209	120	105	101	112	155	117	117	139
1976												
1st qtr	105.2	103	108	103	105	100	101	105	116	99	109	112
2nd	108.6	101	116	115	109	103	100	107	125	111	116	116
3rd	108.2	103	116	122	109	97	96	102	127	113	119	115
4th	112.7	107	129	139	112	104	101	103	129	111	122	122
1977												
1st qtr	115.1	108	133	159	114	100	98	103	132	116	124	133
2nd	118.4	109	119	170	118	105	102	105	140	120	120	135
3rd	123.7	114	131	185	123	113	103	105	149	119	121	131
4th	117.5	113	122	148	117	105	103	107	143	110	113	137
1978												
1st qtr	121.2	136	120	179	119	103	99	106	145	115	119	140
2nd	122.2	133	137	204	119	107	101	119	153	116	113	131
3rd	126.0	130	138	229	121	105	102	115	157	115	116	140
4th	126.8	130	142	224	122	104	102	108	163	121	120	144
Percentage change												
Q4/Q3	+½	−½	+2½	−2½	+½	−1	—	−6	+4	+5	+3½	+2½
1978/77	+4½	+19	+6½	+26	+2	−1	−1	+7	+9½	+½	−2½	+3½

[1] Includes North Sea installations. [2] Indices for other transport equipment SITC (Rev 2) 79 are not separately available.

to the oil-exporting countries rose 9 per cent to £4,767 million. The highest gains were to Saudi Arabia (31 per cent) with higher shipments over all major commodities. Exports to Nigeria increased by 5 per cent with increased value deliveries of medical and pharmaceutical products and crude oil. Exports to India rose by 25 per cent with most of the increase in manufactured goods particularly precious stones and metals. The 12 per cent fall in deliveries to Israel mainly reflected lower shipments of precious stones and transport equipment.

The value of exports to the centrally planned economies in 1978 rose 18 per cent to £1,070 million. Deliveries to the Soviet Union were up 22 per cent, with increased deliveries of metals and power generating and specialised machinery. Shipments to Poland rose 33 per cent mainly reflecting higher deliveries of food and live animals, particularly barley.

EXPORTS BY COMMODITY

See tables 8 to 12

Fourth quarter 1978

Exports of manufactured goods in the fourth quarter accounted for 80 per cent of total exports and at £7,862 million, seasonally adjusted on an overseas trade statistics basis, was 6½ per cent up by value and 1½ per cent by volume in comparison with the previous quarter. Excluding erratic items value increased by 1 per cent but volume fell by 1 per cent.

The value of machinery exports rose by 2½ per cent to £2,410 million in the fourth quarter with volume remaining unchanged. Within this broad category there was a further sharp increase in the value of exports of office machinery (16 per cent); there were small rises too, for general industrial machinery, specialised machinery and metal working machinery. In the other commodity groups, power generating machinery was down 6 per cent from the high third quarter level and telecommunication equipment was also lower. By market, export of office machines to the EEC rose sharply, particularly to West Germany and France; in the rest of western Europe increased shipments were made to Sweden. Principal gains in general industrial machinery were made to the EEC. Deliveries of road vehicles fell by 2 per cent in value, with volume 6 per cent lower, but these falls were more than accounted for by the industrial dispute at Ford.

Chemical shipments in the fourth quarter of 1978 at £1,118 million rose moderately by value (5 per cent) with volume up by 4 per cent. The greatest rise in value was in inorganic chemicals (16 per cent); plastics also rose (9½ per cent). Shipments to the EEC and to the developed world rose strongly with third quarter levels being maintained elsewhere.

Deliveries of metals and miscellaneous

Table 11 Exports: value and volume indices excluding the more erratic items

Seasonally adjusted. Overseas Trade Statistics basis

			Manufactures					
	Total [1]		Total [1]		Machinery and transport equipment [2]		Other manufactures [3]	
	Value	Volume	Value	Volume	Value	Volume	Value	Volume
	£ million	1975 = 100	£ million	1975 = 100	£ million	1975 = 100	£ million	1975 = 100
1975	18 598	100.0	15 024	100	7 662	100	2 640	100
1976	23 887	108.1	19 297	108	9 407	101	3 550	114
1977	29 923	116.3	23 705	115	11 241	102	4 576	128
1978	33 460	123.1	26 082	118	12.371	104	5 158	133
1975								
1st qtr	5 364	105.6	4 346	106	2 193	102	793	110
2nd	5 731	107.0	4 644	108	2 309	102	841	111
3rd	6 132	108.6	4 996	110	2 352	98	909	116
4th	6 659	111.3	5 311	110	2 553	101	1 006	121
1977								
1st qtr	7 058	114.0	5 599	113	2 599	99	1 105	128
2nd	7 388	115.6	5 834	114	2 784	103	1 084	122
3rd	7 867	120.3	6 199	119	2 882	103	1 211	132
4th	7 610	115.3	6 072	114	2 976	104	1 176	128
1978								
1st qtr	7 972	119.6	6 304	117	2 968	101	1 265	135
2nd	8 095	120.8	6 296	116	3 072	106	1 173	122
3rd	8 644	126.1	6 702	121	3 145	105	1 363	138
4th	8 748	125.7	6 780	120	3 186	104	1 357	137
Percentage change								
Q4/Q3	+1	−½	+1	−½	+1½	−1½	−½	−1
1978/77	+12	+6	+10	+3	+10	+1½	+13	+4

[1] As in table 8 but excluding ships, North Sea production installations, aircraft and precious stones. [2] As in table 8 but excluding ships, North Sea production installations and aircraft. [3] As in table 8 but excluding precious stones.

Table 12 Exports by commodity: unit value indices

Not seasonally adjusted. Overseas Trade Statistics basis

Indices 1975 = 100

					Manufactures							
						Machinery and transport equipment [1]						
	Total	Food, beverages and tobacco	Basic materials	Fuels	Total	Total	Machinery	Road vehicles	Chemicals	Metals	Textiles	Other manufactures
SITC (Rev 2)		0+1	2+4	3	5-8	7	71-77	78	5	67-69	65	Rest of 6+8
1970	51.0	56	50	23	52	52	52	53	48	52	57	55
1971	54.0	59	53	26	55	56	55	59	50	51	58	58
1972	57.0	63	58	26	58	60	60	62	51	52	58	62
1973	64.3	70	71	38	65	65	64	67	56	60	69	73
1974	81.8	83	92	87	81	79	78	79	81	85	90	83
1975	100.0	100	100	100	100	100	100	100	100	100	100	100
1976	120.9	115	124	126	121	123	123	123	114	119	115	125
1977	142.6	137	144	150	143	149	148	152	128	136	139	142
1978	155.4	150	140	140	157	165	165	163	130	149	148	159
1976												
1st qtr	110.7	107	107	115	111	113	113	111	106	110	105	113
2nd	117.1	113	119	122	117	119	119	119	109	113	110	121
3rd	124.1	117	131	129	124	126	126	128	116	124	117	127
4th	131.7	124	137	138	132	133	133	136	123	131	127	137
1977												
1st qtr	136.0	130	142	145	136	139	139	142	126	133	133	136
2nd	141.8	138	150	150	142	146	145	150	128	137	137	144
3rd	145.4	142	145	154	146	152	151	156	129	136	142	146
4th	147.3	139	138	150	148	158	156	161	130	137	145	144
1978												
1st qtr	149.7	143	135	141	151	160	159	158	128	143	145	149
2nd	153.3	150	141	140	154	161	161	156	130	146	147	160
3rd	157.4	154	142	138	159	167	167	165	131	151	148	161
4th	161.3	153	142	139	163	173	171	174	131	155	151	168
Percentage change												
Q4/Q3	+2½	−½	—	—	+3	+3	+2	+6	—	+2½	+1½	+4½
1978/77	+9	+9	−2½	−6½	+9½	+11	+11	+7½	+1½	+9½	+6	+12

[1] Indices for other transport equipment SITC (Rev 2) 79 are not separately available.

Table 13 Imports by area (summary)

Seasonally adjusted values. Overseas Trade Statistics basis

£ million cif

		Developed countries					Developing countries			
	Total	Total	EEC	Rest of W. Europe	North America	Other	Total	Oil exporting countries	Other	Centrally planned economies
1970	9 163	6 551	2 486	1 323	1 878	864	2 205	833	1 370	389
1971	9 980	7 164	2 986	1 479	1 752	947	2 420	1 069	1 351	376
1972	11 301	8 381	3 587	1 845	1 807	1 142	2 469	1 040	1 429	432
1973	16 067	11 885	5 291	2 735	2 394	1 465	3 563	1 507	2 056	595
1974	23 513	16 259	7 802	3 493	3 277	1 686	6 485	3 815	2 670	744
1975	24 431	17 632	8 876	3 595	3 242	1 919	6 024	3 301	2 722	738
1976	31 584	22 579	11 526	4 647	4 267	2 139	7 864	4 296	3 568	1 109
1977	36 978	27 393	14 171	5 576	4 948	2 698	8 162	3 800	4 362	1 371
1978	40 969	31 752	16 584	6 991	5 341	2 834	7 855	3 470	4 385	1 300
1976										
1st qtr	6 767	4 790	2 462	1 002	874	452	1 683	924	760	254
2nd	7 757	5 635	2 957	1 117	1 056	505	1 883	999	885	301
3rd	8 211	5 782	2 839	1 248	1 131	565	2 101	1 177	924	270
4th	8 849	6 371	3 268	1 281	1 206	617	2 196	1 196	1 000	284
1977										
1st qtr	9 144	6 586	3 387	1 276	1 247	675	2 137	1 012	1 125	317
2nd	9 609	7 181	3 543	1 644	1 289	705	2 129	1 042	1 087	343
3rd	9 243	6 790	3 619	1 247	1 293	630	2 043	927	1 117	369
4th	8 982	6 836	3 622	1 409	1 118	687	1 853	821	1 033	343
1978										
1st qtr	9 846	7 423	3 880	1 513	1 303	729	1 960	911	1 049	319
2nd	10 221	8 147	4 101	2 011	1 374	662	1 822	791	1 032	306
3rd	10 475	8 001	4 183	1 747	1 305	765	2 128	957	1 171	314
4th	10 427	8 180	4 422	1 720	1 360	679	1 944	811	1 133	361
Percentage change										
Q4/Q3	−½	+2	+5½	−1½	+4	−11	−8½	−15	−3½	+15
1978/77	+11	+16	+17	+25	+8	+5	−4	−8½	+½	−5

metal manufactures increased by 8½ per cent in value to £843 million and by 5 per cent in volume. Both iron and steel and non-ferrous metals rose sharply, with the value of the latter increasing by 23 per cent. Shipments were generally higher with sharply increased deliveries of non-ferrous metals to the centrally planned economies.

Exports of textiles at £326 million were 5½ per cent higher in value with volume up by 3 per cent mainly reflecting increased shipments to the developed countries particularly those in Europe.

The value of other manufactured goods rose by 7½ per cent to £2,088 million with volume up by 3 per cent. Excluding precious stones, however, both value and volume of exports of the remaining commodities fell marginally. By market, higher shipments were made to Belgium and Luxembourg and also Switzerland. The value of clothing and footwear exports was 1 per cent higher, there has been little change in value during the year. Shipments to Europe were increased in value in the latest quarter particularly to the Irish Republic, but deliveries to north America eased. Exports of professional and scientific instruments rose strongly by 9 per cent continuing the rising trend from the earlier quarters of the year.

Within non-manufactured goods, exports of food, beverages and tobacco at £743 million were marginally down compared with the previous quarter. Shipments of food and live animals fell by 7 per cent to the lowest quarterly level of the year. In contrast, beverages and tobacco shipments again rose sharply in value. Whisky exports to the EEC increased strongly particularly to France, Germany and the Netherlands, exports to the United States also improved on the third quarter value.

Basic material exports rose in value by 4½ per cent to £273 million and in volume by 3 per cent. Exports to the EEC rose strongly particularly Italy and West Germany.

Fuel exports fell by 4 per cent in value to £626 million, reflecting lower volume. Changes in the value of crude oil exports, which took over nine-tenths of fuel oil exports, accounted for this movement. Shipments to major markets, Germany and the Netherlands were reduced, while increased deliveries were made to France, Sweden, Norway and the United States.

Table 14 Imports by area (detail)

Seasonally adjusted values. Overseas Trade Statistics basis

£ million cif

	1977	1978					Percentage change	
	Year	Year	1st qtr	2nd qtr	3rd qtr	4th qtr	Q4/Q3	1978/77
Developed countries	27 393	31 752	7 423	8 147	8 001	8 180	+2	+16
EEC	14 171	16 584	3 880	4 101	4 183	4 422	+5½	+17
Belgium and Luxembourg	1 685	1 831	455	450	462	464	+½	+8½
Denmark	816	962	241	245	225	252	+12	+18
France	2 694	3 212	724	734	843	910	+8	+19
Irish Republic	1 299	1 606	400	381	401	423	+5½	+24
Italy	1 544	1 935	455	464	473	543	+15	+25
Netherlands	2 524	2 525	612	630	640	642	—	—
West Germany	3 608	4 513	998	1 133	1 174	1 207	+3	+25
Rest of W. Europe	5 576	6 991	1 513	2 011	1 747	1 720	−1½	+25
Finland	594	636	151	155	163	167	+2½	+7
Norway [1]	854	1 445	215	745	227	257	+13	+69
Sweden	1 268	1 344	322	340	334	348	+4	+6
Switzerland	1 333	2 156	508	421	659	568	−14	+62
North America	4 948	5 341	1 303	1 374	1 305	1 360	+4	+8
United States	3 695	4 223	1 013	1 078	1 051	1 080	+3	+14
Canada	1 214	1 089	284	286	250	269	+7½	−10
Other	2 698	2 834	729	662	765	679	−11	+5
Australia	365	349	88	75	101	85	−16	−4½
Japan	1 064	1 283	311	320	341	312	−8½	+21
New Zealand	392	434	102	87	108	137	+26	+11
South Africa	877	768	195	208	227	138	−39	−12
Developing countries	8 162	7 855	1 960	1 822	2 128	1 944	−8½	−4
Latin America	768	779	181	200	217	180	−17	+1½
Middle East and north America	3 938	3 598	943	778	1 000	877	−12	−8½
Iran	789	534	164	101	143	126	−12	−32
Kuwait	555	622	197	140	153	132	−14	+12
Saudi Arabia	1 132	871	244	166	247	214	−13	−23
Rest	3 456	3 478	836	844	912	887	−2½	+½
Nigeria	238	286	55	102	68	62	−9	+20
Centrally planned economies	1 371	1 300	319	306	314	361	+15	−5
Soviet Union	788	688	164	146	178	200	+12	−13
Total	36 978	40 969	9 846	10 221	10 475	10 427	−½	+11
of which								
Oil exporting countries	3 800	3 470	911	791	957	811	−15	−8½

[1] From January 1978, continental shelf (foreign part) previously included in rest of western Europe has been re-allocated to the appropriate parent country in the Overseas Trade Statistics. It has not been possible to compile figures on this new basis for earlier periods. While any discontinuity at the level of the broad area groups is likely to be comparatively small, at the country level it has a greater effect and is the main explanation of the sharp rise in imports from Norway in 1978.

Year 1978

In 1978 as a whole, the value of exports was £37,363 million, on an Overseas Trade Statistics basis, 12 per cent up on 1977 with volumes 4½ per cent higher and the unit value index up by 8½ per cent.

In the year, the value of manufactured goods exported was £29,984 million, 11 per cent higher than 1977, most of which represented higher export prices. The volume of manufactures exported increased by 1½ per cent compared with the 8 per cent of the previous year and 9 per cent a year earlier. These figures partly reflect the UK's competi-

Table 15 Imports by commodity (summary)

Seasonally adjusted values. Overseas Trade Statistics basis

£ million cif

				Industrial materials				Finished manufactures [1]						
									Machinery and transport equipment [1]					
	Total	Food beverages and tobacco	Fuels	Total	Basic materials	Chemicals	Other semi-manufactures	Total	Total	Machinery	Road vehicles	Other transport equipment [1] [2]	Other	Miscellaneous
SITC (Rev 2)		0 + 1	3	2, 4, 5, 6	2 + 4	5	6	7 + 8	7	71-77	78	79	8	9
1970	9 163	2 047	950	3 859	1 381	533	1 945	2 175	1 599	1 192	174	233	576	131
1971	9 980	2 176	1 253	3 840	1 298	549	1 993	2 558	1 860	1 274	283	303	698	153
1972	11 301	2 356	1 247	4 286	1 352	631	2 303	3 267	2 399	1 586	498	316	868	145
1973	16 067	3 094	1 733	6 235	2 011	862	3 362	4 798	3 506	2 414	668	424	1 291	208
1974	23 513	3 762	4 644	8 909	2 623	1 523	4 762	5 749	4 141	3 002	669	471	1 608	449
1975	24 431	4 335	4 316	8 331	2 272	1 350	4 709	6 906	5 042	3 338	910	794	1 864	543
1976	31 584	4 983	5 669	11 245	3 301	1 925	6 019	9 225	6 755	4 305	1 432	1 019	2 470	462
1977	36 978	5 937	5 255	13 484	3 670	2 361	7 453	11 797	8 783	5 295	2 134	1 355	3 015	505
1978	40 969	6 142	4 831	14 931	3 422	2 759	8 750	14 501	10 681	6 338	2 795	1 548	3 820	564
1976														
1st qtr	6 767	1 081	1 282	2 409	689	413	1 307	1 855	1 310	899	271	141	544	107
2nd	7 757	1 245	1 381	2 706	782	472	1 452	2 336	1 745	1 026	333	386	591	121
3rd	8 211	1 261	1 491	2 910	884	497	1 529	2 390	1 754	1 122	391	240	636	120
4th	8 849	1 396	1 514	3 221	946	543	1 731	2 645	1 946	1 257	437	251	699	114
1977														
1st qtr	9 144	1 497	1 360	3 324	985	591	1 748	2 746	2 005	1 293	486	226	741	123
2nd	9 609	1 548	1 394	3 495	906	587	2 001	3 096	2 354	1 300	499	555	743	121
3rd	9 243	1 532	1 275	3 308	915	603	1 791	2 953	2 195	1 361	554	281	758	135
4th	8 982	1 360	1 226	3 357	865	580	1 913	3 002	2 229	1 341	595	292	773	125
1978														
1st qtr	9 846	1 515	1 249	3 560	852	638	2 070	3 275	2 426	1 451	670	305	850	122
2nd	10 221	1 544	1 089	3 566	854	667	2 045	3 957	3 044	1 571	711	762	913	131
3rd	10 475	1 582	1 246	3 870	846	682	2 342	3 549	2 554	1 601	727	226	995	177
4th	10 427	1 501	1 247	3 935	870	771	2 294	3 720	2 657	1 714	688	255	1 063	134
Percentage change														
Q4/Q3	−½	−5	—	+1½	+3	+13	−2	+5	+4	+7	−5½	+13	+7	−24
1978/77	+11	+3½	−8	+11	−7	+17	+17	+23	+22	+20	+31	+14	+27	+12

[1] Includes North Sea installations. [2] Not seasonally adjusted.

tive position and the strength of world trade.

In value terms machinery exports rose by 11 per cent but volume was down by 1 per cent. Within this category, there were increases for each group of machinery ranging from 4 per cent for telecommunications equipment up to 21 per cent for office machinery. By value, deliveries of road vehicles increased by 7 per cent and volume by 6½ per cent.

Exports of chemicals rose by 10 per cent in both value and volume. Medicinal and pharmacuetical products showed the largest value increase (18 per cent), plastics the smallest (5 per cent). The increases, by market, were to the EEC, particularly Denmark and the Irish Republic, and elsewhere to the developing countries. Shipments to the United States and the centrally-planned economies were reduced.

The value of textile exports recovered a little towards the end of 1978, but overall grew by only 3½ per cent. The EEC's deliveries took 40 per cent of UK textile exports in 1978 while the rest of western Europe, which formed our second largest market, took 15 per cent. The United States market was expanded, though the Canadian market fell leaving the north American area little changed.

Exports of metals and miscellaneous metal manufactures grew comparatively slowly (8 per cent), performance was varied within the group.

For other manufactures, precious stones with a rise of 27 per cent in value, contributed to the strong rise in value (17 per cent) in this category. Deliveries of clothing and footwear were up by 9½ per cent, professional and scientific instruments by 19 per cent in value with major increases to the EEC share and north America.

The increase in the value of non-manufactured goods in 1978 (31 per cent) was almost three times greater than that of manufactured goods with volumes up by 21 per cent. Deliveries of food and live animals increased in value by 29 per cent and of beverages and tobacco by 36 per cent. Basic materials rose slowly by 5½ per cent in value and by 6½ per cent in volume.

There was a downturn in the increase in the value of fuel exports to 14 per cent from the high level of the previous year. Increased value shipments were sent to Europe but there were reductions to north America. Major markets for crude oil were West Germany, Netherlands, Denmark, Irish Republic, Sweden and the United States, who between them took around three-quarters of the total.

IMPORTS BY AREA

See tables 13 and 14

Fourth quarter 1978

In the fourth quarter of 1978 the value of imports was £10,427 million, seasonally adjusted on an Overseas Trade Statistics basis, marginally lower than in the previous quarter.

During this period, deliveries from the developed countries were 2 per cent higher. The value of imports from the EEC, at £4,422 million, rose by 5½ per cent. Among the individual member countries, imports from the Irish Republic rose by 5½ per cent, with an increase in deliveries of meat, cheese and petroleum products, outweighing a fall in arrivals of cattle. Imports from France continued to rise (8 per cent), with higher shipments of office machinery, electrical machinery and motor cars. The 12 per cent increase in deliveries from Denmark, following a low third quarter level, reflected a rise in shipments of dairy products. Imports from Italy rose sharply, by 15 per cent, with increased arrivals of electrical machinery, motor cars and footwear. Imports from West Germany increased by 3 per cent, with higher deliveries of machinery and motor cars outweighing a fall in arrivals of iron and steel. Imports from Belgium and Luxembourg rose marginally, with higher deliveries of precious stones and textile yarns, and lower shipments of petroleum products. Arrivals from the Netherlands were unchanged, the result of higher shipments of petroleum products and chemicals, and lower deliveries of equipment for North Sea oil production installations.

At £1,720 million, imports from the rest of western Europe were 1½ per cent lower than in the previous quarter. Deliveries from Norway rose by 13 per cent, mainly the result of increased arrivals of natural gas. Imports from Sweden rose by 4 per cent, reflecting increased deliveries of iron and steel, and motor cars. Imports from Switzerland fell by 14 per cent, while there was a 2½ per cent increase in deliveries from Finland.

Imports from north America rose by 4 per cent in the fourth quarter to £1,360 million. The 7½ per cent rise in arrivals from Canada was attributable to increased deliveries of zinc and nickel. Imports from the United States rose by 3 per cent, reflecting higher arrivals of aircraft and works of art. Imports from the other developed countries fell by 11 per cent to £679 million. Deliveries from South Africa fell sharply, by 39 per cent, the result of a fall in arrivals of precious stones. There was a 26 per cent increase in arrivals from New Zealand reflecting a rise in imports of dairy products. Imports from Australia fell by 16 per cent, from a high third quarter level, with reduced arrivals of textile fibres offsetting higher deliveries of lead. Imports from Japan fell by

8½ per cent with a fall in shipments of motor cars outweighing higher deliveries of radios and television sets.

Imports from the developing countries, at £1,944 million, fell by 8½ per cent from a high third quarter level. Within this total, arrivals from the oil exporting countries fell by 15 per cent. There was a fall of 12 per cent in shipments from the Middle East and north Africa, with deliveries from Kuwait 14 per cent lower, largely reflecting reduced crude oil imports. Shipments from Saudi Arabia and Iran were down by 13 and 12 per cent respectively. The fall of 17 per cent in arrivals from Latin America was spread over a wide range of commodities. Among imports from the rest of the developing countries, which in total fell by 2½ per cent, there was a 9 per cent fall in arrivals from Nigeria with lower shipments of cocoa beans outweighing a rise in crude oil deliveries.

Imports from the centrally planned economies rose by 15 per cent, with an increase of 12 per cent in deliveries from the Soviet Union.

Year 1978

In 1978, the value of imports was £40,969 million, on an Overseas Trade Statistics basis, 11 per cent higher than in 1977.

In this period, deliveries from the developed countries rose by 16 per cent. The value of imports from the EEC was £16,584 million, 17 per cent higher than in 1977. Almost three-quarters of imports from this area are manufactured goods and the EEC now supplies approximately one-half of our imports of such goods. Among the individual member countries, imports from the Irish Republic rose by 24 per cent, with an increase in deliveries of cattle, meat, dairy products, petroleum products and organic chemicals.

Deliveries from West Germany rose by 25 per cent, with increased arrivals of organic chemicals, textiles, machinery and motor cars. As a result West Germany overtook the United States as Britain's major supplier of imported goods. The 25 per cent increase in deliveries from Italy reflected higher shipments of textiles, iron and steel, motor cars, clothing and footwear. Imports from France were 19 per cent higher, with increased arrivals of chemicals, maize, textiles and motor cars contributing. Imports from Demark rose by 18 per cent, with higher deliveries of bacon and butter outweighing a fall in arrivals of wheat. The 8½ per cent increase in deliveries from Belgium and Luxembourg was the result of higher deliveries of chemicals, textiles, precious stones, motor cars and machinery offsetting a fall in arrivals of petroleum products. Imports from the Netherlands were unchanged, the result of higher deliveries of meat and machinery and lower shipments of dairy produce, cereals, soya beans and petroleum products.

In 1978, the value of imports from the rest of western Europe was £6,991 million, an increase of 25 per cent. The 62 per cent growth in imports from Switzerland was largely attributable to an increase in deliveries of precious stones. Some of the large rise in imports from Norway reflects arrivals of oil and gas from North Sea fields (see also note 1 to table 14).

Imports from Finland rose by 7 per cent, with higher deliveries of timber and paper and paperboard contributing. Increased arrivals of motor cars and lorries, which were partly offset by lower deliveries of pulp and waste paper, and iron ore resulted in a rise of 6 per cent in imports from Sweden.

Imports from north America rose by 8 per cent in 1978 to reach £5,341 million. A quadrupling in shipments of tobacco, resulted in a rise of 14 per cent in imports from the United States. Deliveries from Canada fell by 10 per cent, with lower arrivals of timber, pulp and waste paper, and nickel outweighing higher shipments of wheat and inorganic chemicals.

In 1978, imports from the other developed countries rose by 5 per cent to £2,834 million. The greatest increase was in the value of deliveries from Japan, which rose by 21 per cent, largely the result of greater shipments of motor cars. Imports from New Zealand, chiefly meat and dairy produce, increased by 11 per cent. The 12 per cent fall in deliveries from South Africa was mainly attributable to reduced arrivals of precious stones. Shipments from Australia fell by 4½ per cent, with lower imports of barley offsetting higher deliveries of meat.

Imports from the developing countries, at £7,855 million, fell by 4 per cent. Within this total, arrivals from the oil-exporting countries declined by 8½ per cent. Imports from the Middle East and north Africa, which includes many of the oil exporting countries, also fell by 8½ per cent. Among these countries, imports from Iran and Saudi Arabia fell by 32 per cent and 23 per cent, respectively, reflecting a decrease in the quantity of crude oil shipped. In contrast, an increase in the quantity of crude oil imports from Kuwait led to a 12 per cent growth in arrivals from this source. Elsewhere there was a rise of 1½ per cent in arrivals from Latin America. Among imports from the rest of the developing countries, which in total rose marginally, there was a 20 per cent rise in shipments from Nigeria, reflecting an increase in deliveries of cocoa beans and crude oil.

Imports from the centrally planned economies fell by 5 per cent in 1978 to £1,300 million. Within this area, imports from the Soviet Union fell by 13 per cent.

Table 16 Imports by commodity (detail)

Seasonally adjusted values. Overseas Trade Statistics basis — £ million cif

	1977	1978				Percentage change	
	Year	Year	1st qtr	2nd qtr	3rd qtr	4th qtr	Q4/Q3	1978/77
Food, beverages and tobacco	5 937	6 142	1 515	1 544	1 582	1 501	−5	+3½
Food and live animals	5 375	5 329	1 337	1 341	1 361	1 289	−5½	−1
Meat and meat preparations	974	1 138	262	277	299	300	—	+17
Dairy produce and eggs	460	510	135	156	84	135	+60	+11
Cereals and animal feeding-stuff	1 030	888	226	213	238	211	−11	−14
Fruit and vegetables	1 108	1 045	255	251	280	259	−7½	−5½
Other food and live animals	1 802	1 747	461	464	451	370	−18	−3
Beverages and tobacco	562	813	178	204	221	211	−4½	+45
Beverages	306	360	87	83	94	96	+1	+18
Tobacco	256	453	94	117	129	114	−11	+77
Fuels	5 255	4 831	1 249	1 089	1 246	1 247	—	−8
Industrial materials	13 484	14 931	3 560	3 566	3 870	3 935	+1½	+11
Basic materials	3 670	3 422	852	854	846	870	+3	−7
Crude materials	3 389	3 144	795	795	763	791	+3½	−7
Wood, lumber and cork	633	600	144	153	140	164	+17	−5
Pulp and waste paper	440	349	87	86	83	93	+13	−21
Textile fibres	461	480	119	124	124	114	−8½	+4
Metal ores	749	634	165	161	154	155	+1	−15
Chemicals	2 361	2 759	638	667	682	771	+13	+17
Organic chemicals	701	792	188	193	187	223	+19	+13
Inorganic chemicals	329	432	88	104	119	121	+2	+31
Medicinal and pharmaceutical products	174	201	44	49	51	57	+10	+16
Plastics	544	630	151	153	156	169	+8	+16
Other semi-manufactures	7 453	8 750	2 070	2 045	2 342	2 294	−2	+17
Wood and cork manufactures	311	383	89	96	99	98	−1	+23
Paper and paperboard	972	1 055	256	266	261	271	+4	+8½
Textiles	1 130	1 455	329	353	377	396	+5½	+29
Non-metallic mineral manufactures[1]	2 055	2 663	602	565	758	738	−2½	+30
Iron and steel	985	1 056	250	275	299	232	−22	+7
Non-ferrous metals	1 131	1 146	276	275	281	313	+12	+1½
Miscellaneous metal manufactures	533	644	154	156	163	171	+5	+21
Finished manufactures	11 797	14 501	3 275	3 957	3 549	3 720	+5	+23
Machinery	5 295	6 338	1 451	1 571	1 601	1 714	+7	+20
Power generating machinery	694	812	194	203	215	199	−7½	+17
Specialised machinery	881	1 083	250	272	268	293	+9½	+23
Metal working machinery	223	320	69	80	78	94	+21	+43
General industrial machinery	991	1 187	277	300	307	303	−1½	+20
Office machinery	912	1 105	256	272	268	308	+15	+21
Telecommunications equipment etc	544	618	131	144	163	180	+11	+14
Other electrical machinery	1 050	1 213	280	297	310	326	+5	+16
Road vehicles	2 134	2 795	670	711	727	688	−5½	+31
Other transport equipment[1]	1 355	1 548	305	762	226	255	+13	+14
Other finished manufactures	3 015	3 820	850	913	995	1 063	+7	+27
Clothing and footwear	982	1 174	255	265	319	336	+5	+20
Instruments	840	1 094	240	274	286	294	+2½	+30
Miscellaneous	505	564	122	131	177	134	−24	+12
Total	36 978	40 969	9 846	10 221	10 475	10 427	−½	+11

[1] Not seasonally adjusted.

IMPORTS BY COMMODITY

See tables 15 to 19

Fourth quarter 1978

In the fourth quarter, both the value and volume of imports of food, beverages and tobacco fell erratically by 5 per cent to their lowest quarterly level of the year. In value terms, arrivals of food and live animals declined by 5½

per cent reflecting a fall in volume. Deliveries of cereals and animal feeding stuffs, fell in value by 11 per cent reflecting a fall in both volume and price, while imports of fruit and vegetables fell by 7½ per cent as a result of lower prices. In contrast, shipments of dairy produce rose markedly, by 60 per cent in value, mainly due to higher volumes, reflecting both a recovery from the low level of the previous quarter and stockbuilding of butter in advance of a price rise. Imports of meat were unchanged, while imports of other food and live animals fell by 18 per cent in value. Arrivals of tobacco fell by 11 per cent as a result of a fall in volume while arrivals of beverages were little changed.

Fuel deliveries were unchanged at £1,247 million as lower imports of crude oil were matched with a rise in shipments of petroleum products and natural gas.

Imports of industrial materials, at £3,935 million, rose by 1½ per cent in value and marginally in volume; excluding precious stones the increases were 3 per cent and 2½ per cent respectively. Within this group, imports of basic materials rose by 3 per cent largely the result of a greater volume of arrivals of timber (up 17 per cent in value) and paper and paperboard (up 13 per cent in value). Deliveries of textile fibres fell by 8½ per cent, reflecting a fall in volume, while arrivals of metal ores were little changed in value, a fall in volume being offset by higher prices. Following generally steady increases during the year, deliveries of chemicals, at £771 million, rose sharply by 13 per cent in value and 16 per cent in volume with particularly strong growth in deliveries of organic chemicals (a 19 per cent rise in value); plastics increased by 8 per cent in value. The value of imports of other semi-manufactures

Table 17 Imports by commodity: volume indices

Seasonally adjusted values. Overseas Trade Statistics basis

Indices 1975 = 100

				Industrial materials				Finished manufactures [1]				
									Machinery and transport [2]			
	Total	Food, beverages and tobacco	Fuels	Total	Basic materials	Chemicals	Other semi-manufactures	Total	Total	Machinery	Road vehicles	Other
SITC (Rev 2)		0 + 1	3	2, 4, 5, 6	2 + 4	5	6	7 + 8	7	71-77	78	8
Weights	1000	177	177	341	93	55	193	283	206	137	37	76
1970	82.9	101	117	89	129	83	73	56	56	61	39	54
1971	87.2	100	128	90	118	85	78	64	64	65	58	64
1972	95.8	102	127	98	120	97	87	79	81	83	90	75
1973	109.1	103	131	112	136	114	100	100	102	107	105	93
1974	109.4	100	123	114	120	123	109	102	104	115	90	99
1975	100.0	100	100	100	100	100	100	100	100	100	100	100
1976	106.4	102	100	112	119	122	106	109	109	104	127	109
1977	108.8	102	83	116	113	131	113	124	127	117	160	117
1978	117.2	101	81	128	116	158	125	140	141	136	165	139
1976												
1st qtr	101.0	95	100	109	115	115	105	96	92	96	104	107
2nd	107.3	101	101	111	117	120	106	115	117	103	122	109
3rd	108.3	102	102	113	124	123	105	111	111	106	140	111
4th	109.1	108	98	115	120	128	109	114	115	113	140	111
1977												
1st qtr	108.9	105	86	115	121	130	109	118	117	116	148	118
2nd	112.8	106	87	118	110	128	118	133	140	116	150	116
3rd	108.4	103	80	115	112	141	109	122	125	119	167	116
4th	105.1	93	79	116	110	126	116	123	125	116	176	116
1978												
1st qtr	115.8	101	84	126	116	145	125	132	132	128	173	130
2nd	117.3	101	71	124	117	151	120	154	163	135	170	132
3rd	118.7	104	82	131	113	155	132	136	133	137	168	143
4th	117.0	99	84	132	117	180	125	139	136	144	151	149
Percentage change												
Q4/Q3	−1½	−5	+2½	+½	+3½	+16	−5½	+2½	+2	+5	−10	+4½
1978/77	+7½	−½	−2½	+10	+2½	+20	+11	+13	+11	+16	+3	+19

[1] Includes North Sea installations. [2] Indices for other transport equipment SITC (Rev 2) 79 are not separately available.

Table 18 Imports: value and volume indices excluding the more erratic items

Seasonally adjusted. Overseas Trade Statistics basis

			Industrial materials				Finished manufactures			
	Total [1]		Total [2]		Other semi-manufactures [2]		Total [3]		Machinery and transport equipment [3]	
	Value £m	Volume 1975 = 100	Value £m	Volume 1975 = 100	Value £m	Volume 1975 = 100	Value £m	Volume 1975 = 100	Value £m	Volume 1975 = 100
1975	22 782	100.0	7 470	100	3 848	100	6 118	100	4 254	100
1976	29 467	106.7	10 135	114	4 909	108	8 219	109	5 748	109
1977	33 851	107.3	11 693	114	5 662	109	10 461	123	7 446	126
1978	37 105	115.6	12 587	126	6 406	121	12 982	141	9 162	142
1976										
1st qtr	6 386	102.4	2 167	110	1 065	106	1 716	101	1 172	98
2nd	7 080	105.2	2 413	112	1 160	105	1 951	108	1 361	107
3rd	7 727	109.3	2 661	116	1 280	109	2 154	113	1 518	113
4th	8 275	109.8	2 895	116	1 405	110	2 397	116	1 697	119
1977										
1st qtr	8 607	110.1	3 009	117	1 433	110	2 524	122	1 783	123
2nd	8 462	106.7	2 902	112	1 409	107	2 542	121	1 800	123
3rd	8 609	108.8	2 947	116	1 430	110	2 680	125	1 922	130
4th	8 173	103.5	2 835	112	1 390	108	2 715	125	1 942	129
1978										
1st qtr	9 019	115.1	3 030	123	1 540	120	2 979	135	2 129	138
2nd	8 980	111.5	3 081	124	1 559	118	3 200	139	2 288	142
3rd	9 576	118.6	3 191	127	1 663	125	3 329	144	2 334	144
4th	9 531	117.3	3 285	130	1 644	121	3 474	147	2 411	146
Percentage change										
Q4/Q3	−½	−1	+3	+2½	−1	−4	+4½	+2	+3½	+1
1978/1977	+9½	+7½	+7½	+10	+13	+11	+24	+15	+23	+13

[1] As in table 15 but excluding ships, North Sea production installations, aircraft and precious stones. [2] As in table 15 but excluding precious stones. [3] As in table 15 but excluding ships, North Sea production installations and aircraft.

fell by 2 per cent to £2,294 million, a fall in volume offsetting higher prices. Excluding precious stones value fell by 1 per cent and volume by 4 per cent. Deliveries of iron and steel were 22 per cent lower, entirely due to a fall in volume. Arrivals of non-ferrous metals and textiles rose by 12 per cent and 5½ per cent, respectively, reflecting roughly equal rises in both volume and price. An increase in volume led to a 5 per cent growth in imports of miscellaneous metal manufactures.

Imports of finished manufactures were on a sharply rising underlying trend during 1978. In the fourth quarter, imports rose by 5 per cent in value and by 2½ per cent in volume. Within this group, imports of machinery grew particularly strongly, with rises of 7 per cent in value and 5 per cent in volume in the latest quarter. There were increases in all categories except power generating machinery (down 7½ per cent) and general industrial machinery (down 1½ per cent). The largest rises were in metal working machinery (21 per cent), office machinery (15 per cent) and telecommunications equipment (11 per cent). Arrivals of road vehicles fell by 5½ per cent in value, while volume, which had shown little general change over the first three quarters of the year, fell by 10 per cent in the fourth quarter; both movements reflected the effect of the industrial action involving Ford. Imports of other finished manufactures (mainly consumer goods) also rose comparatively strongly during 1978, and increased by 7 per cent in value and 4½ per cent in volume in the latest quarter. Deliveries of clothing and footwear rose by 5 per cent and imports of instruments were 2½ per cent higher. The value of miscellaneous imports fell by 24 per cent as volume fell back from the exceptionally high level of the previous quarter.

Year 1978

In 1978 as a whole the value of imports on an Overseas Trade Statistics basis was £40,969 million, 11 per cent higher than in 1977. The volume of imports rose by 7½ per cent while the unit value index rose by 3 per cent.

Imports of food, beverages and tobacco, at £6,142 million, were 3½ per cent higher than in 1977, mainly the result of higher prices. In value terms deliveries of food and live animals fell by 1 per cent. Imports of meat rose by 17 per cent reflecting roughly equal rises in volume and price. Shipments of dairy produce rose by 11 per cent – higher prices offsetting a fall in volume. Lower volume, reflecting a good UK harvest, resulted in a 14 per cent drop in imports of cereals and animal feeding stuffs. A fall in volume was also reflected in the 5½ per cent decrease in deliveries of fruit and vegetables. Higher prices led to an 18 per cent increase in imports of beverages while a greater volume of deliveries resulted in a 77 per cent rise in tobacco imports.

Fuel imports, at £4,831 million, were 8 per cent lower than in 1977 with a fall in arrivals of petroleum and petroleum products more than offsetting a threefold growth in imports of natural gas, particularly from the Norwegian sector of the North Sea.

Imports of industrial materials, which in value terms (at £14,931 million) represented over one-third of total imports, increased during 1978 by 11 per cent, with volume up by a similar amount. Virtually all this growth was in chemicals and other semi-manufactures both of which increased in value by 17 per cent with the growth spread over most commodities. In volume terms chemical imports rose by 20 per cent while arrivals of other semi-manufactures grew by 11 per cent. The main value increases were in arrivals of inorganic chemicals (31 per cent), textiles (29 per cent) and wood manufactures (23 per cent). By value there were small increases in arrivals of iron and steel (7 per cent), paper and paperboard (8½ per cent), and non-ferrous metals (1½ per cent). In contrast, with the exception of textile fibres, there were falls in each of the major components of basic materials, generally the result of lower prices.

Imports of finished manufactures amounted to £14,501 million in 1978, against one-third of total imports. This represented a growth of 23 per cent by value and of 13 per cent by volume compared with 1977. Within machinery imports, which in total increased by 20 per cent, arrivals of metal working machinery rose by 43 per cent, while the other main types of machinery all rose by around 15-25 per cent. Imports of road motor vehicles increased in value terms by 31 per cent although volume rose by only 3 per cent. Among other finished manufactures, which in value increased by 27 per cent, imports of clothing and footwear rose by 20 per cent and instruments by 30 per cent, in both cases due to an increase in the volume of shipments.

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Notes

The Ford dispute: This dispute ran from end September until 24 November. Estimates of its effect on the trade figures can only be approximate; these suggest an adverse effect on the visible balance in the fourth quarter of about £70 million, with exports reduced by around £130 million and imports by about £60 million. (This differential impact reflects both the levels of trade and the way in which the figures are compiled.)

Treatment of oil platforms in the second quarter import figures: The import figures for the second quarter include two oil platforms valued on an Overseas Trade Statistics basis at

Table 19 Imports by commodity: unit value indices

Seasonally adjusted values. Overseas Trade Statistics basis

Indices 1975 = 100

				Industrial materials				Finished manufactures				
									Machinery and transport [1]			
	Total	Food, beverages and tobacco	Fuels	Total	Basic materials	Chemicals	Other semi-manufactures	Total	Total	Machinery	Road vehicles	Other
SITC (Rev 2)		0 + 1	3	2, 4, 5, 6	2 + 4	5	6	7 + 8	7	71-77	78	8
1970	43.8	45	19	51	47	45	55	53	53	54	50	51
1971	45.9	48	24	50	48	46	53	56	57	56	54	54
1972	48.0	51	24	51	49	47	54	59	60	59	62	59
1973	60.9	67	31	66	66	56	69	69	68	68	71	71
1974	87.9	87	87	94	97	91	94	82	80	79	83	86
1975	100.0	100	100	100	100	100	100	100	100	100	100	100
1976	122.3	113	131	121	123	120	121	125	126	127	128	122
1977	141.1	132	148	141	145	137	140	143	144	144	155	141
1978	145.3	140	138	144	132	144	149	155	156	149	194	151
1976												
1st qtr	110.4	105	119	107	107	108	107	113	114	115	116	110
2nd	119.1	112	127	117	118	117	117	122	123	124	125	117
3rd	125.6	114	135	125	127	123	124	128	130	131	129	125
4th	134.3	120	143	135	141	131	134	137	138	139	141	137
1977												
1st qtr	137.7	126	147	139	145	131	138	139	140	140	149	136
2nd	141.2	131	149	143	148	137	143	141	142	142	152	139
3rd	143.0	135	149	142	147	139	141	145	146	146	155	144
4th	142.3	137	145	139	139	140	140	147	149	147	161	143
1978												
1st qtr	140.4	137	137	137	130	140	140	148	150	145	177	142
2nd	144.9	140	141	142	131	144	147	154	155	148	190	151
3rd	146.7	141	139	145	134	144	151	157	158	150	198	154
4th	149.0	142	137	150	134	147	158	160	161	151	209	157
Percentage change												
Q4/Q3	+1½	+½	−1½	+3	+½	+1½	+5	+2	+2	+1	+6	+2
1978/77	+3	+6	−6½	+2	−8½	+5	+6	+8	+8½	+3½	+25	+7½

[1] Indices for other transport equipment SITC (Rev 2) 79 are not separately available.

around £500 million. The platforms had been moved to Norway in July 1977 for completion. As there was no effective change in ownership, the import figures on a balance of payments basis include only the value of additional foreign goods (amounting to about £75 million) used in completing the platforms. This mirrors the treatment adopted for exports in 1977 when the value of the platforms was included in the figure on an Overseas Trade Statistics basis but excluded on a balance of payments basis.

During the completion process, expenditure was incurred for services (the value of contracts for finishing the platform other than the supply of major items of equipment) and the estimates of net invisible earnings in recent quarters incorporate appropriate debits.

Revisions: Small revisions have been made to annual figures for both 1977 and 1978. Some improvements have been made to the pricing assumptions underpinning the index numbers. This has lead to some generally minor changes in the index numbers from 1970. In addition, the figures now incorporate the effect of the regular, annual updating of seasonal factors. From January 1979, industrial diamonds have been classified to division 27, 'Crude fertilisers and crude minerals (excluding coal, petroleum and precious stones)' rather than division 66 'Non-metallic mineral manufactures'. Figures have been amended back to 1970.

Standard notes: The standard notes on definitions and coverage of the figures were published in *Trade and Industry*, on 23 February.

Back-run figures: Tables 20 to 29 containing back-runs of figures will be published next week (16 March).

Small fall in real value of food bought in 1977

Britons spent an average of £5.10 per person per week in 1977 on food for consumption in the home says the annual report of the National Food Survey Committee published on 20 February.

This was 15.7 per cent more than the 1976 average, but after taking into account the increase in food prices actually paid by consumers it in fact implies a fall of about 0.6 per cent in the real value of food purchases per head compared with the year before. This slight fall in real value was due principally to a decline in purchases of liquid milk and some convenience foods – particularly instant coffee – and to a cut-back in demand for subsidised foods following the further run-down of food subsidies. These decreases, however, were partially offset by increased purchases of several other foods, notably beef, pork and potatoes.

Other changes in the average dietary pattern included increases in consumption of poultry and frozen convenience meats to the highest levels yet recorded by the survey, and there was also a marked increase in flour purchases. In contrast, consumption of lamb, of fish and of bread fell to the lowest levels yet recorded. More bacon was eaten but the consumption of eggs declined further, and there was some further replacement of butter by soft margarine, and of oat products by ready-to-eat breakfast cereals. Supplies of potatoes and other fresh vegetables continued to be short during the early months of the year because of bad weather during their growing season, but returned to more normal levels in the second half of the year. However, memories of the shortages of 1975 and 1976 clearly encouraged increased garden and allotment production of potatoes and other fresh vegetables.

Indeed, production in gardens and allotments appears to have been on a sufficient scale to have noticeably depressed the demand for the commercial crop and this may explain why, in real terms, the average retail price of potatoes in the second half of the year was lower than normal. With the improvement in supplies of potatoes, household purchases of the processed forms – chips, instant and canned – also declined.

Average consumption of fresh fruit declined, but this was principally due to the poor 1977 crop of apples. Consumption of canned and dried fruit also declined, but purchases of fruit juices continued their upward trend. Because of the world supply and price situation, consumption of tea fell to its lowest level since rationing, and that of coffee was at its lowest level for 10 years.

Despite all these changes, the energy content of the average household diet was little different from that in recent years, but because of the switch from butter to margarine there was a slight increase in the ratio of polyunsaturated fatty acids to saturated fatty acids. Because of the greater consumption of meat, there were increases in the amounts of animal protein and B-vitamins, and other shifts in dietary pattern contributed to an increase in intake of vitamin C. A fall in the estimated intake of iron was not due to the changes in dietary pattern so much as to new scientific determination of the iron content of milk, old potatoes and chocolate.

Copies of the report are obtainable from HMSO (£4.50, by post £4.76).

Particulars of dealers in securities and of unit trusts

The following changes have taken place in parts 1, 4 and 5 of the 1978 edition of 'Particulars of Dealers in Securities and of Unit Trusts' published in May under the Prevention of Fraud (Investments) Act 1958.

Part 1 Holders of principal's licences

Name	Nationality or country of incorporation	Address
Additions		
Murray Johnstone Unit Trust Management Ltd	Great Britain	163 Hope Street, Glasgow G2 2UH
Euromart Securities Ltd		23 East Street, Tonbridge, Kent
Change of name	**To**	
Dai-Ichi Kangyo Paribas Ltd	Dai-Ichi Kangyo International Ltd	

Part 4 Exempted dealers including Trustee Savings Banks

Change of address	**To**
Seton Trust Ltd	Suite 27, First Floor, Ludgate House, 110 Fleet Street, London EC4

Part 5 Authorised unit trust schemes

Group and/or name and address of management company	Schemes	Trustee
Additions		
Craigmont Unit Trust Managers Ltd, 6th Floor St Martins House, 16 St Martins-le-Grand, London EC1A 4EP	Craigmont Recovery Trust	The Governor and Company of the Bank of Scotland, The Mound, Edinburgh EH1 1YZ
Intel Funds (Management) Ltd, 15 Christopher Street, London EC2B 2PE	Intel Pacific Fund	Coutts and Co, 15 Lombard Street, London EC3V 9AV
Changes		
Delete Rothschild and Lowndes Management Ltd	New Court Exempt Trust	National Westminster Bank Ltd, 41 Lothbury, London EC2P 2PB
and replace by Hill Samuel Unit Trust Managers Ltd, 100 Wood Street, London EC2P 2AJ	Hill Samuel General Exempt Trust	Midland Bank Trust Company Ltd, 27/32 Poultry, London EC2P 2BX
The following change has taken place in the entry for N. M. Rothschild Asset Management Ltd in the trustee column against 'Newcourt Exempt Equity Fund	The following change has taken place in the entry for Equitas Secuirities Ltd in the management column against 'Equitas Progressive Trust'	
Delete Williams and Glyn's Bank Ltd, 20 Birchin Lane, London EC3P 3DP	*Delete* Equitas Securities Ltd, 13 Fenchurch Avenue, London EC3M 5BT	
and replace by National Westminster Bank Ltd, 41 Lothbury, London EC2P 2BP	*and replace by* Abbey Unit Trust Managers Ltd, 1-3 St Paul's Churchyard, London EC4M 8AR	
In the entry for Allied Hambro Far East Exempt Fund		
Delete The Royal Bank of Scotland London Trustee Co, 29 Charing Cross, London SW1A 2DX	*and replace by* The Royal Bank of Scotland London Trustee Co, 49 Charing Cross, London SW1A 2DX	

Selective financial assistance under the Industry Act 1972

Regional selective assistance: offers of £10,000 or more

This table shows offers of £10,000 or more made since 31 July 1974 under section 7 of the Industry Act 1972 against which a first payment to the company concerned was made in the period 1 October to 31 December 1978. Offers of interest relief grant with a loan equivalent of £10,000 or more are also shown. **Inquiries:** 01-212 0364.

Area and company	Type of assistance committed (see notes at foot of table)		Amount of assistance committed (£)	Standard industrial classification (minimum list heading): the activity involved is production unless otherwise stated	Location of premises
Scotland					
ABU (Great Britain) Ltd	IR	A	61 050	Toys and games	Clydebank
Arthur Engineering Ltd	IR	A	27 600	Sub contract engineers	Bathgate
John Bartholemew and Son	IR	A	72 500	Printing, publishing, binding	Edinburgh
Buccleugh Engineering Ltd	IR	A	3 325	Metal goods	Broxburn
Daiwa Sports Ltd	IR	A	224 200	Sports equipment	Wishaw
FP Castings Ltd	IR	A	40 500	Toys and games	East Kilbride
Glen Gordon Ltd	IR	A	61 845	Hosiery and knitted goods	Aberdeen
J and W Kerr Group Ltd	IR	A	69 500	Radio and electronic components	Greenock
Mair and McCartney Ltd	IR	A	28 350	Mechanical engineering	Ayr
McClean and Gibson Ltd	IR	A	37 800	Mechanical engineering	Glenrothes
James McLean and Ltd	IR	A	6 900	Bolts, nuts, screws, rivets	Paisley
Melroses Ltd	IR	A	69 615	Tea and coffee processors	Leith
Robert Patterson Construction	IR	A	20 000	Abrasives and building materials	Airdrie
Rautomead Ltd	IR	A	11 025	Copper, brass, copper alloys	Dundee
Satchwell Sunvic Ltd	IR	B	206 250	Scientific and industrial components	Motherwell
Scomagg Group Ltd	IR	A	28 500	Pumps, valves, compressors	Bellshill
Selkirk Glass Ltd	IR	A	4 500	Glassware	Galashiels
William Ure (Eng.) Ltd	IR	A	14 800	Mechanical engineering	Wishaw
Total			988 260		
Wales					
A and E Instrumentation Ltd	IR	A	51 500	Radio and electronic components	Newtown
Aluminium Corporation Ltd	IR	B	116 000	Aluminium and aluminium alloys	Gwynned
Andrew Murray Kerr	IR	A	39 200	Plastics products	Pontyclun
The Bamber Eng Co Ltd	IR	A	39 000	Motor vehicles	Tonypandy
CBS Manufacturing	IR	A	66 000	Broadcasting equipment	Bridgend
'D' Coachbuilders Ltd	IR	A	29 700	Motor vehicles	Morriston
Ecco Jewellery Ltd	IR	A	14 400	Jewellery, precious metals	Denbigh
Ferro (GB) Ltd	RG	A	50 000	General chemicals	Wrexham
Graham Manufacturing Ltd	IR RG	A	25 300	Vacuum and heat transfer equipment	Abercarn
GR Electronics Ltd	IR	A	7 150	Radio and electronic components	Newport
GS Packaging Ltd	IR RG	A	71 800	Paper and board packaging	Flint
R. A. Lister Farm Equipment	IR RG	A	35 000	Agricultural machinery	Monmouth
Mechanical Linkages Ltd	IR	A	16 000	Mechanical handling equipment	Aberdare
Frank Mills	IR	A	2 150	Timber (sawmilling)	Shotton
Ontario Corporation	IR RG	A	182 000	Aerospace equipment	Pontypool
Alf Parkman Ltd	IR RG	A	86 000	Printing, publishing, binding	Pontypool
Rubery Owen Ltd	IR	B	64 000	Motor vehicles	Wrexham
Saltney Engineering Ltd	IR	A	26 000	Metal industries	Chester
Thyssen (GB) Ltd	IR	A	6 750	Abrasive and building materials	Llanelli
Total			927 950		
Northern					
Anchor Extrusions Ltd	IR	A	140 000	Aluminium and alloys	Millom
Andus Noble Ltd	LN	A	100 000	Plastics products	Blyth
Allen Bradley Electronics	IR	A	88 125	Radio, radar, electronics	Jarrow
Broadgates Eng Co Ltd	IR	A	5 145	Engineers small tools and gauges	Hexham
Bursgreen (Durham) Ltd	IR	A	105 515	Woodworking machinery	Houghton Le Spring
Cleveland Circuits Ltd	IR	A	41 920	Radio and electronic components	Saltburn
Henry Cooke Ltd	IR	A	13 160	Paper and board	Kendal
Courtaulds Furnishing Fabrics	IR	A	103 250	Woollen and worsted	Carlisle
Donn Products Ltd	IR	A	31 500	Iron and steel	Sunderland
Engineering Plastic Mouldings	IR	A	11 875	Plastics products	Hexham
Glenfare Foods Ltd	IR	A	23 000	Frozen foods	Ashington
Kismet Dynaflex Ltd	IR	A	62 980	Mechanical engineering	Hartlepool
W. P. Monkhouse and Sons	IR	A	35 000	Animal and poultry foods	Penrith
Newman Shopfitters	IR	A	8 580	Shop and office fitting	Billingham
Northeast Profiling and Eng.	IR	A	76 000	Iron and steel	Newcastle
Renshaw Engineering Ltd	IR	A	13 854	Engineers small tools and gauges	Washington
Plessey Telecommunications	IR	A	1 900 000	Radio and electronic components	South Shields
R. E. Reynolds Foods Ltd	IR	A	16 208	Bread and flour confectionery	Washington
Rixbourne Ltd	LN	A	36 000	Industrial plant and steelwork	Gateshead
R and J Engineering	IR	A	16 240	Metal industries	Birtley
Rolba North Ltd	IR	A	51 750	Motor vehicles	Bedlington
Romag Safety Glass	IR	A	21 690	Glass	Blaydon on Tyne
Rushglen Ltd	IR	A	15 525	Paper and board	Darlington
Sancella Ltd	IR	A	65 520	Sanitary protection	Morpeth
Tangrose Engineering	IR	A	75 240	Metal industries	Newton Aycliffe
Teefab Ltd	IR	A	15 210	Wire products	Darlington
Thorn Heating Ltd	IR	A	156 240	Electric domestic appliances	Gateshead
Trimdon Sportswear Ltd	IR	A	242 212	Tailored outerwear	Stockton/ Thornaby
Washington Engineering	IR	A	26 600	Heating and cooling equipment	Washington
Welwyn Electric	IR	A	32 376	Electronic components	Bedlington
Total			3 530 715		
North west					
Frank Berry	IR	A	6 125	Mechanical engineering	Swinton
BICC Telecommunications	IR	B	148 000	Insultated wires and cables	Burnley
Birds Eye Foods Ltd	IR RG	A	674 000	Frozen foods	Kirby
BOC Ltd	IR	A	189 000	Metalworking machine tools	Skelmersdale
Boddingtons Breweries	IR	A	16 800	Brewing and malting	Manchester
N. Booth and Sons Ltd	IR	A	12 600	Brushes and brooms	Liverpool
Bosal UK Ltd	IR	A	218 018	Motor vehicles	Bamber Bridge
Henry Branch	IR	A	7 200	Industrial plant and steelwork	Runcorn
Carrington Viyella Ltd	IR	B	518 000	Spinning and doubling	Bamber Bridge
Chester Barrie Clothes	IR	A	100 000	Men's tailored outerwear	Crewe
Clayton and Jowett Ltd	IR	A	15 750	Sugar	Liverpool
Alan Cooper Ltd	IR	A	96 350	Furniture and upholstery	Burnley
CV Menswear	IR	B	333 000	Spinning and doubling	Nelson
John Dale	RG	A	49 106	Plastics products	Skelmersdale
Darwen Metal Workers	IR	A	4 772	Industrial plant and steelwork	Darwen
Duni Bila Ltd	IR	A	55 600	Plastics products	Runcorn
Extruda Ltd	IR	A	2 533	Plastics products	Radcliffe
Fine Art Development	IR	A	273 375	Printing, publishing, binding	Accrington
Garrick Eng Co Ltd	IR	A	9 250	Electrical goods	Southport
Gomme Holdings	IR	A	29 700	Furniture and upholstery	Nelson
Hemmings Plastics	IR	A	80 475	Plastics products	Liverpool
Henry and Leigh Slater	IR	B	26 738	Paper and board	Macclesfield
Initial Services Ltd	SIG		34 600	Laundries	Rochdale
KME Receivership	GR	C	150 000	Electric domestic appliances	Kirby
Leyland Chemicals	IR	A	18 250	Frozen foods	Wigan
Leyland Printing Co	IR	A	25 000	Paper and board packaging	Leyland
M. D. Makin Ltd	IR	A	7 400	Synthetic resin, rubber, plastics	Stockport

continues on next page

Area and company	Type of assistance committed (see notes at foot of table)		Amount of assistance committed (£)	Standard industrial classification (minimum list heading): the activity involved is production unless otherwise stated	Location of premises
Met Instrumentation	IR	A	3 358	Scientific and industrial instruments	Manchester
National Library of the Blind	SIG		68 750	Retail distribution	Stockport
Northern Box and Packaging	IR	A	4 388	Paper and board packaging	Darwen
Nymofil Ltd	IR	A	29 184	Man-made fibres	Blackpool
Pauls and Whites Foods	IR	B	285 600	Animal and poultry foods	Preston
Pendle Connectors	IR	A	84 000	Electrical goods	Leigh
Plessey Co Ltd	IR	B	360 000	Radio, radar, electronics	Liverpool
Rigby and Mellor	IR	A	10 750	Motor vehicles	Bury
Rotunda Ltd	IR	B	51 975	Rubber	Denton
San Wood Developments	IR	A	6 000	Metal industries	Warrington
Serlackus Converting	IR	A	106 200	Paper and board	Skelmersdale
Service Mouldings	IR	A	2 250	Plastics products	Oldham
Space Engineering	IR	A	18 700	Mechanical engineering	Stockport
Stackworth Eng Ltd	IR	A	18 900	Mechanical engineering	Stockport
Traverner Rutledge Ltd	IR	B	127 500	Chocolate and sugar confectionery	Liverpool
Tolona Pizza Products	IR	A	36 480	Bread and flour confectionery	Ormskirk
TVR Engineering	IR	A	17 220	Plastics (motor vehicles)	Blackpool
John Watson Wallcoverings	IR	A	47 250	Paper and board	Darwen
Welsh Bros Fabrication	IR	A	2 782	Furniture and upholstery	Irlam
Uniflex Holdings	IR	A	186 000	Furniture and upholstery	Prescot
VG Data Systems	IR	A	44 400	Scientific and industrial instruments	Altrincham
Total			4 627 449		
Yorkshire and Humberside					
Archer and Drax Ltd	IR	A	20 160	Furniture and upholstery	Hull
BDC Cabinets Ltd	IR	A	105 971	Furniture and upholstery	Leeds
John Blackburn	IR	A	16 660	Printing, publishing, binding	Leeds
Canning Town Glass	IR	B	157 731	Glass	Mexborough
Carpets International	IR	B	230 000	Carpets	Halifax
Carrington Fabrics	IR	A	51 965	Textile finishing	Dewsbury
Chapmans Springs	IR	A	8 589	Agricultural machinery	Sheffield
Cyanamid of GB	IR	A	7 650	General chemicals	Bradford
Emil Engineering Ltd	IR	A	10 500	Mechanical engineering	Rotherham
Falcain Engineers	IR	A	15 255	Mechanical engineering	Sheffield
Guanaria and Sons	IR	A	2 331	Milk and milk products	Leeds
Hepworth Shipyard	IR	A	8 320	Shipbuilding and marine engineering	Hull
H. L. Heuck and Son	IR	A	4 336	Stationers goods	Hull
Initial Services	IR	A	29 260	Made-up textiles	Bradford
International Sports Co	IR	A	40 768	Toys and games	Barnsley
Wm Johnson and Son Co	IR	A	5 948	Machinery (ventilators)	Hull
Kavanagh Print	IR	A	61 497	Printing, publishing, binding	Bradford
Mechforge Ltd	IR	A	20 160	Metal industries	Doncaster
Milltech Ltd	IR	A	14 428	Engineers small tools and gauges	Hull
Monague L. Meyer	IR	A	4 748	Timber	Hull
Polyolefine Fibres and Eng	IR	A	21 329	Man-made fibres	Bradford
Rendel Eng Co	IR	A	4 221	Metal industries	Grimsby
The Rustless Iron Co	IR	A	17 874	Metal industries	Keighley
W. and H. Rycroft Ltd	IR	A	6 631	Textile finishing	Keighley
W. B. Stockwell Ltd	IR	A	4 664	Woollen and worsted	Morley
United Box Co Ltd	IR	A	7 875	Paper and board packaging	Huddersfield
Total			878 781		
East Midlands					
Alumasc Ltd	IR	A	38 350	Cans and metal boxes	Alfreston
Betts and Broughton	IR	A	28 750	Footwear	Sutton-in-Ashfield
Dexion Ltd	IR	A	11 500	Metal industries	Gainsborough
Fusion Equipment	IR	A	6 700	Hand tools and implements	Chesterfield
Jersey Kapwood	IR	A	168 000	Hosiery and knitted goods	Alfreton
Kern Liebers	IR	A	11 000	Metal industries	Gainsborough
Kodak Ltd	IR	A	216 000	Chemicals	Sutton-in-Ashfield
Midland Binding Machines	IR RG	A	2 623	Binding machines	Heanor
Smith and Goodall	IR	A	2 500	Synthetic resin, rubber, plastics	Sutton-in-Ashfield
Total			485 423		
South west					
Bach Simpson	IR	A	12 865	Scientific and industrial instruments	Wadebridge
Duke and Ockenden	IR	A	187 220	Construction and earth moving	Falmouth
Kernewek Pottery	IR	A	27 280	Pottery	Truro
Texas Instruments	IR	A	61 600	Radio and electronic components	Plymouth
Timber Construction	IR	A	3 595	Furniture and upholstery	Plymouth
Total			292 560		
Total amount of assistance committed			11 731 138		
Total amount paid in regional selective assistance during period			23 092 756		

Notes

IR Interest relief grant
RG Removal grant
LN Loan

A New jobs being created
B Preservation of employment

Patents recorded 'licences of right'

Under section 46 of the Patents Act 1977 the register was noted 'licences of right' in respect of the following patents on the date specified:

21 February 1979

1246364 Matsushita Electric Industrial Co Ltd
A fibre optics element for a facsimile transmission system
1263485 Matsushita Electric Industrial Co Ltd
A semi-conductor oscillating diode
1270678 Matsushita Electric Industrial Co Ltd
Apparatus for erasing an optical image stored in a storage tube
1279333 Matsushita Electric Industrial Co Ltd
Solid electrolytic capacitor
1314114 Matsushita Electric Industrial Co Ltd
Ionic conductive solid electrolytes comprising complexes of TCNQ
1314463 Matsushita Electric Industrial Co Ltd
Organic solid electrolytes comprising complexes of TCNQ
1321511 Matsushita Electric Industrial Co Ltd
Sintered ferrite having a garnet structure for high frequency
1323025 Matsushita Electric Industrial Co Ltd
Impurity diffusion process employing wafers made of desired impurity as impurity sources
1327836 Matsushita Electric Industrial Co Ltd
Process for forming a ternary material on a substrate
1331712 Matsushita Electric Industrial Co Ltd
Solid electrolytes comprising complexes of TCNQ
1347599 Matsushita Electric Industrial Co Ltd
Method of making resin encapsulated electrical coil
1349665 Matsushita Electric Industrial Co Ltd
Recording apparatus
1360501 Matsushita Electric Industrial Co Ltd
Video image recording apparatus
1366771 Matsushita Electric Industrial Co Ltd
Character generation cathode-ray tube using tantalum target
1368660 Matsushita Electric Industrial Co Ltd
A process for preparing GaAs 1-xPx crystal
1376220 Matsushita Electric Industrial Co Ltd
Cathode-ray tube having index strip electrode
1376465 Matsushita Electric Industrial Co Ltd
Colour image pick-up system using strip filter
1376556 Matsushita Electric Industrial Co Ltd
Charge transfer complexes containing 7,7,8,8-tetracyano-quinodimenthane and an N-substituted quaternary nitrogen-containing heterocyclic compound
1377144 Matsushita Electric Industrial Co Ltd
Image signal converter in facsimile
1381025 Matsushita Electric Industrial Co Ltd
Printed circuit assembly and method for fabrication thereof
1382748 Matsushita Electric Industrial Co Ltd
Solid electrolytic capacitor and solid electrolyte therefor
1389192 Matsushita Electric Industrial Co Ltd
Electro-plating solutions for depositing silver alloys and a method of forming silver alloys by electro-plating
1389472 Matsushita Electric Industrial Co Ltd
Magneto-sensitive device having PN junction
1391342 Matsushita Electric Industrial Co Ltd
Magnetic recording and reproducing apparatus for two or four channel multi-track endless tape
1407251 Matsushita Electric Industrial Co Ltd
A method of making a color strip filter
1414380 Matsushita Electric Industrial Co Ltd
Apparatus for preparing mineral water
1428072 Matsushita Electric Industrial Co Ltd
Circuit arrangement for DC-operated fluorescent lamps
1441195 Matsushita Electric Industrial Co Ltd
Facsimile system
1309619 Societe Anonyme Automobiles Citroen
Improvements in or relating to devices for determining the speed of a rotating disc
1363053 Societe Anonyme Automobiles Citroen
Improvements in or relating to devices for controlling the braking of vehicle wheels
1459271 Societe Anonyme Automobiles Citroen
Improvements in or relating to vehicle wheel and brake assemblies
1477795 Industrial Filter and Pump Manufacturing Co
Electrolytically removing metal ions from a solution
1502892 Hitachi Ltd
Electrostatically focusing type image pick-up tubes and method of manufacturing the same

Any person who claims that the proprietor of the patent is, and was at the time of entry, precluded by a contract in which the claimant is interested from granting licences under the patent may, within three months after the making of the relevant entry, apply to the Comptroller on patents form 31/77 for cancellation of the entry.

I. J. G. Davis, Comptroller

Reserves rise in February

UK official reserves rose by $359 million during February. Accruals of foreign currency borrowing by the public sector under the exchange cover scheme amounted to $258 million, and repayments — including early repayments — to $72 million. At the end of February, the reserves stood at $16,617 million.

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1976 Report on the census of production (price including postage shown in parentheses)

PA 1001 Introductory notes (£1.34½)

Business Monitors in the production series and miscellaneous series, and certain monitors (nos. SD 1 to SD 9) in the service and distributive series, are available by annual subscription from Her Majesty's Stationery Office, PO Box 569, London SE1 9NH.

Copies of specific issues (including back issues) can be ordered by post (payable in advance) from the library at the Business Statistics Office, Newport, Gwent NPY 1XG, tel. 0633 56111, ext. 2973, telex 497121 – answer back BSONPT G.

Registrations of British, community and foreign films

The following are details of films registered by the Department of Trade under the Films Acts 1960 to 1970, as amended by the European Communities Act 1972, during the week ended Friday, 2 March 1979.

BR/E indicates that the film is a British quota film, EC that the film is a quota film. The date which forms part of the registration number of each is the date on which quota life of the film expires.

Title of film	Registered no.	Playing time minutes	Date of registration	Registered in the name of	Maker's name
BRITISH					
Review No. 7 (32nd Year)	BR/E 39950/3/3/84	9	1 March	Data Film Distributors Ltd	The National Coal Board
Movietone News 2595	BR/E 39836/3/3/84	8	2 March	British Movietonews Ltd	British Movietonews Ltd
FOREIGN					
Love And Bullets	F 39945	99	27 February	ITC Film Distributors Ltd	ITC Films Inc, California
The Domino Killings	F 39946	93	27 February	ITC Film Distributors Ltd	Domino Principle Associates, New York
High Ballin'	F 39947	100	27 February	ITC Film Distributors Ltd	AIP/Pando Co, California
Friday Foster	F 39948	90	27 February	ITC Film Distributors Ltd	AIP, California
The Deer Hunter	F 39949	183	1 March	Columbia-EMI-Warner Distributors Ltd	EMI Films Inc, California
No Longer Alone	F 39951	100	1 March	World Wide Films	World Wide Films, London and World Wide Pictures, California

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(a) annually (m) monthly (q) quarterly Weekly statistics are not included

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Furniture deliveries and orders (m) 23 Feb 79
Health and safety (q) 11 Aug 78
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Industrial production index numbers (m) 23 Feb 79
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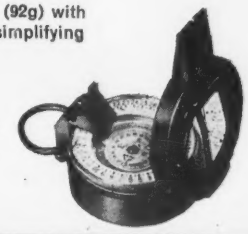

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